ABSTRACT

EDUCATIONAL LEADERSHIP

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FACTORS INFLUENCING STUDENT DEGREE COMPLETION AT A HISTORICALLY BLACK UNIVERSITY IN A SOUTHEASTERN URBAN CENTER

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Dissertation dated December 2006

The purpose of this study was to determine the influence of instructors teaching style, student learning styles, student self-efficacy, student support services, student motivation, financial aid, campus safety, and student demographics on student degree completion. The dependent variable for this study was undergraduate student degree completion. Independent variables were instructors teaching style, student learning styles, student self-efficacy, student support services, student motivation, financial aid, campus safety, and student demographics.

A descriptive statistical design involving Pearson correlation, factor analysis, and multiple regression, ANOVA, and T-test were utilized to achieve the purpose of this study. A purposeful sample of those students enrolled in the School of Education, School of Business, School of Arts and Sciences, and School of Social Work at a Southeastern

Historically Black University was used (n = 151). Participants in this study were undergraduate students of the aforementioned schools. Participants completed a survey instrument developed by the researcher, Dr, Ganga Persaud, and Dr. Trevor Turner.

The result of the study indicated a significant relationship between student self-efficacy, student motivation, and student gender and degree completion. Female students were more likely to persist to graduation than their male counterpart. Based on these findings, recommendations for instructors, head of departments, deans, university policy makers, and researchers were given. The study was limited to one particular institution.

FACTORS INFLUENCING STUDENT DEGREE COMPLETION AT A HISTORICALLY BLACK UNIVERSITY IN A SOUTHEASTERN URBAN CENTER

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CHAPTER I

INTRODUCTION

Undergraduate student persistence through college ranks prominently among the topics discussed in higher education over the past 28 years. The effects of student attrition include a severe loss of resources by society, by students, and by colleges that spend to provide programs and services to help retain and graduate students. When a student leaves college prematurely, any debt incurred must be repaid, despite the failure to graduate, and the college loses future funding in the form of tuition and fees and auxiliary services (bookstore, foodservice, etc) generated over time. Similarly, businesses and organizations that are located within the college vicinity such as restaurants, movie theaters, and so on, also suffer a negative economic impact when students leave.

Over the years, higher education has played a major role in promoting the development of society as well as individuals; and college attendance has been regarded by student, parents and society as a means of broadening one's intellectual and social scopes, enhancing one's earning power, and contributing to the larger social welfare. Obtaining a bachelor's degree has important implications for the individual (Cuccaro-Alamin, 1996; Davis, 1997a). When factors such as intelligence, socioeconomic background, and work experience are considered, a bachelor's degree provides

somewhere between a 20% and 40% advantage in earnings over a high school diploma (Pascarella & Terenzini, 1991).

Albeit, these universally recognized benefits of college education, more students leave their college or university than stay (Adelman, 1999; Astin, 1997; Tinto, 1987). Some students transfer to a different institution but many of them leave higher educational institutions completely. Consequently, accountability laws or programs are rapidly coming into effect at both the federal and state levels so as to spur undergraduate student persistence. So colleges are being asked for data that demonstrates that students are completing degrees in specific time periods. Additionally, governmental agencies are asking colleges to demonstrate that students are learning what is being taught.

Similarly, researchers have theorized that the interaction of personal attributes and environmental influences, and their introduction or removal, offers the students opportunities to be absorbed into the social and academic systems of an institution. A student's decision to either remain or withdraw from college is influenced by the rewards found within these systems (Terenzeni & Pascarella, 1971; Bean, 1985).

However, the publication by Vincent Tinto (1975) of the "Dropouts from higher education: A theoretical synthesis of the recent literature" provided the framework for explaining student leaving behavior from higher educational institutions. The Tinto model took a sociological approach to the issue and posited that the interaction between the two variables—the college and student—influences staying or leaving behavior. Since its initial publication, the Tinto model has become the most widely acceptable and emulated theoretical model concerning student attrition from higher educational

institutions. Although the concept of persistence to graduation is frequently studied, the themes that might exist through studying within group differences are seldom addressed.

Therefore, this study is geared towards unveiling those indicators that tend to support student persistence to graduation at a comprehensive Historical Black University (HBU). The University was established in 1988 owing to the voluntary merger of two Historical Black Colleges: Atlanta University, founded in 1865 and Clark College, founded in 1869. The mission of the University is to provide a quality undergraduate, graduate and professional education to a diversified student population that is predominantly African-American as well as students from other racial, cultural and socioeconomic backgrounds. To achieve the mission, the university strives to create and nurture an environment which fosters intellectual, social and cultural curiosity and creativity, and continuing development of morally sound systems among students, faculty, and administrators, and staff; increase the number of African-American faculty members who obtain doctoral degrees in the critical areas of natural and mathematical sciences, humanities, and social sciences; implement an integrated and centralized program for faculty and staff to address personal and professional development; and to build and maintain a vigorous institutional advancement and fundraising capacity to provide the financial resources necessary to meet the University's goals.

Purpose of the Study

The purpose of the study is to identify factors that support undergraduate students' completion of degrees programs at a Southeastern Historically Black University. The research utilizes members of four selected groups of participants

(undergraduate students in the School of Education, the School of Business Administration, School of Arts and Science, and the School of Social Work) to collect quantitative data. This study compares and contrasts the perceptions of each of the groups. Particularly, this study provides a synthesis of the participant perceptions as they relate to the students' propensity to complete their degree within four to six years at the University. The Pearson correlation, multiple regression, T-test, and factor techniques will be used to analyze quantitative data from a survey instrument. These techniques focus principally on the peculiar attributes of the institution under study rather than comparison with other institutions.

Problem in Context

Universities admit students in order to provide them quality education leading to graduation in order to take up careers and responsibilities that would allow them to become contributing citizens to the society as a whole. The Historically Black University is no exception. Hence, the Historically Black University must adhere to certain practical standards that will allow it to achieve its mission and goals. In the School of Education, academic quality is created by the educational standards implemented by individual faculty members in interactions with students. The School of Education standards are implemented according to the National Council for Accreditation of Teacher Education (NCATE). NCATE standards call for faculty to demonstrate pedagogical and professional knowledge, skills, and dispositions necessary to help students learn; educational unit should be designed to achieve diversity needed to help student learn; education unit should institute a sound program to achieve continuous professional

development; and school leadership should provide the resources that are pertinent to maintaining sufficient faculty and stability so as to help students learn.

Similarly, the School of Business Administration must operate in compliance with the standards enunciated by The Association to Advance Collegiate Schools of Business (AACSB). The AACSB standards stipulate that the School of Business must maintain academic standards and retention practices that are consistent with the school's mission; maintain a staff sufficient to provide stability and ongoing quality improvement for student support activities; students in all program and majors have opportunity to receive instruction from appropriately qualified faculty; maintain overall plan of faculty support and professional development; and manage curriculum in a way that will result in an undergraduate degree having experiences in general knowledge and skill areas such as multicultural and diversity understanding.

Nevertheless, the goal of increasing student persistence is perhaps the single most significant objective now confronting the survival of many of the nation's colleges and universities including Clark Atlanta University (CAU) (Voorhees, 1985a). For the institution, student attrition represents not only a loss of income from tuition, but also a cost associated with recruiting new students to fill the vacated positions. During the 1960s and 1970s, the number of students seeking entry to colleges grew remarkably (Hossler, 1984). The pressures on institutions of higher learning were to grow rapidly enough to accommodate the increasing number of applicants. These institutions were able to replace departing students new students; either new freshmen or transfers from other institutions. By the beginning of the 1980s the market situation started to change.

The number of institutions had expanded in response to political and demographic pressures. At the same time the number of students seeking admission was beginning to decline. In response to this shift in market pressures, institutions began to employ sophisticated marketing techniques in order to increase their market share and maintain enrollment.

As colleges and universities developed elaborate and expensive marketing strategies, the comparative advantages of such strategies declined. It is fundamentally for this reason that many institutional planners began to look at the problem of student attrition (Braxton, Vesper, & Hossler, 1995). Previously, institutions channeled their efforts on managing enrollment and thereby meeting revenue projections on the recruitment of new students. However, institutions have realized that revenues are affected by student persistence as much as they are by recruitment (Porter & Barberini, 1989).

Colleges and universities are increasing being blamed for students' failure to complete undergraduate degrees. There is a growing public use of institutional graduation rates as a measure of accountability (Adelman, 1999). Increasingly, states are using graduation and job-placement rates to judge performance. Several states have begun tying state appropriations to how well public universities meet prescribed goals, and how fast they graduate students (Burd, 1997).

The problem of undergraduate student graduation rate has continued to plague the Southeastern Historical Black University. Indeed, the low undergraduate graduation rate has been quite worrisome to the university authorities. For instance, according to the

information made available to the U. S Department of Education and published in the *Journal of Blacks in Higher Education*, April 20, 2004, 36% of the students graduated within 4 years at the University in 2003. Although this figure shows an improvement from a miserable 1997 graduation year, the University ranked 4th, 6th, and 6th for graduation within 4 years, 5 years, and 6 years respectively, when compared to the selected HBCU coeducational institutions in the 1998 cohort year shown in Table 1.

Table 1

Graduation Rates for Selected HBCU Coeducational Institutions

Graduation Rates for Cohort Year 1998 (percent)			
HBCU Institution	4 years	5 years	6 years
Florida A & M	17.4	38.1	45.6
Clark Atlanta University	22.6	31.9	34.2
Alabama A & M	18.3	27.9	32.8
Morgan State University	14.6	32.2	39.4
Alcorn State University	25.3	39.1	42.7
Hampton University	40.0	51.3	53.7
North Carolina A & T	23.6	38.9	42.5

Source: NCES

Over the years, researchers have written a lot about the alienation of black students in majority white colleges and universities. Many black students find it difficult to cope with the psychological situations that they are made to undergo in the predominantly white institutions. So, many students have opted for the safety net of Historical Black Colleges and Universities because of its rich cultural heritage: smaller class size, low student–instructor ratio, just to mention a few reasons. But if the institution could only graduate 30% of the students who enrolled in the institution four years prior to 2003, it means that the remaining 70% who did not graduate have either took longer than four years to graduate, transferred to other institutions or dropped out from college entirely. The challenge facing the university therefore becomes how to fashion out programs that will enable it increase its student retention rate by perhaps elevating the undergraduate graduation rate of its students.

In order to determine additional variables that may be included in the study of undergraduate student persistence to graduation at the Comprehensive Historical Black University, a focus group was instituted. A total of 15 undergraduate students of which 4 represented the School of Business Administration, School of Education, School of Arts and Sciences respectively and while 3 represented the School of Social Work participated in the focus group.

Focus Group Interview

The students identified the following variables as having a major influence towards their degree completion. Some of the responses given by the students that

participated in the focus group are (a) class size, (b) class attendance, (c) institutional resources (Center for Academic Achievement), and (d) class interaction (student/faculty).

All students agreed that *smaller classes* were important factors in their success. Some of the students experienced classroom settings at other universities while others only knew the typical HBCU environment. Access to instructors and an effective learning environment were some results of small class sizes according to the students.

Institutional Resources (Center for Academic Achievement) was also mentioned as being helpful student success. All students mentioned the importance of resources, tutoring, and the role the Center played in the ability to meet their academic goals. The Center provides free tutorial on any subject. The tutors work around the students schedule and at the students pace.

The students intimated that *classroom interaction (faculty/student and student/student interaction)* was helpful to them. The personal attention to student needs and the presentation of the instructions in ways that are relevant to students' lives were some direct examples of beneficial classroom interaction.

The students identified *motivation* as playing a part in degree completion. Most of the students agreed that you must have an overall drive for wanting to be something better. They said that it pays to go to class, and to associate with students who are goal oriented and focused.

Campus safety was identified as a vital condition that is required in the completion of an undergraduate degree. Students mentioned instances where students have bean on the edge because of invasions into their apartments. Again, a woman was

recently killed near Morehouse College and Lowry Street which is in the neighborhood of the institution being studied; after she confronted individuals who stole her car. Some of the students said that if the safety situation on campus does not improve, they would consider transferring to other institutions.

Probable Causal Variables

According to the NCATE standards, faculty members must demonstrate the content, pedagogical, and professional knowledge, skills, and dispositions that are necessary to help all students learn. However, the students who took part in the focus group perceive that most instructor style of instructional delivery tends to involve lecture exclusive without taking the students learning style into consideration. Accordingly, the students claim that one-way that faculty could embellish their delivery style is through professional development.

However, during my interviews with some instructors, they asserted that the university does not have a coordinated program that is tailored to each faculty's need for self-improvement. Thus, some students may not be able to muster the reasoning skills that the instructor's style requires. Consequently, the student could lose self-efficacy and might therefore, not be able to obtain good grades in order to remain in good standing in their classes.

A student who does not perform well in a given class may be discouraged and therefore, may not be willing to make the sacrifice and effort required to complete a course. Thus, the student's motivation may be affected negatively by poor grades. This could be explained by the expectancy motivational theory enunciated by Victor Vroom.

According to Vroom (1976), felt needs trigger behavior, and this motivated behavior is increased if a person perceives a positive relationship between effort and performance.

Adherence to NCATE stipulated standards also entails that the School of Education make a serious effort in implementing diversity into its student body. Obviously, a student population that is comprised of 99% African-Americans does not augur well for student diversity. When the student body is diverse, each student is able to interact with students of other cultures and nationalities. In so doing, students could acquire certain study habits or academic qualities that the members of other cultures or nationalities are endowed. The possession of good study skills may enable the students to improve classroom performance thereby increasing their motivation and self-efficacy.

Both NCATE and AACSB standards call for student support activities that reflect the schools' mission, program and student characteristics. Also, the school must maintain a staff that is sufficient to provide stability and ongoing quality improvement for student support activities.

A key factor that affect graduation rate is the student preparation prior to entering college. This could be reflected in the standardized admission test scores. Incoming students to Southeastern Historically Black University have an average Scholastic Aptitude Test (SAT) score of about 900 which is relatively low for instance, Spelman College and Morehouse College incoming students' average SAT was above 1100 in 2002 to 2003. Some low-income students do not have the availability of rigorous college preparatory classes (Pascarela & Terenzini, 1991). Students who lack rigorous college

preparatory classes which a low SAT Score (see Table 2) may reflect being ill equipped to deal with challenging college

Table 2

SAT Scores for Entering Freshmen at Clark Atlanta University, 2000 - 2004

Year	SAT Score
2000	876
2001	887
2002	918
2003	927
2004	893

Source: NCES

classroom work. Consequently, the students may receive poor grades. As students poor grades mounts, their self-efficacy may fall which in general could affect their persistence.

The research indicates that completion of a college degree is related to socioeconomic status, awareness of opportunities, family structure, environment, as well as education attainment of parents affect student success (Coleman, 1976).

Students have different learning styles depending on the experience, gender and age. It is incumbent upon the faculty to meet these students at different levels of competencies in order to deliver effective instruction (Tinto, 1997).

The capacity of schools to adapt to change, improve, and respond to community needs depends on their capacity to engage in continuous learning as organizations

(Hallinger, 1999). Invariably, institutions of higher learning can only be judged in their drive to become learning organizations through consistent improvement in students' academic achievement.

Significance of the Study

Research in the area of student degree completion is crucial to the future viability of black colleges in general and the Southeastern Historically Black University in particular. Without the comprehension of the factors that ameliorate the provision of successful educational experiences, black institutions of higher learning will stumble in their mission to address the imbalances in the education of African-Americans. A thorough examination of such efforts at the Southeastern Historically Black University may facilitate additional improvement in the area of undergraduate student degree completion, goal attainment, and student persistence.

College education is becoming more important than ever before for an individual to become economically stable. Despite a rise in college enrollment of minority and low-income students, the gap in college completion has not changed remarkably in the past 25 years (Institute for Higher Education Policy, 2001). Thus, the split in who benefits from college education persists. Also, according to the research, minority students are losing ground compared to Caucasians who persist to graduation. White students are more likely to receive a bachelor's degree than African-American or Hispanic students. In fact, minorities including Hispanics, and Asian Americans, account for only 20% of all college degrees in 1997 and only 18% of African-American students obtain bachelor's

degrees as compared to 35% of Caucasian students (Institute for Higher Education Policy, 2001).

Summary

The chapter outlined the basis for conducting this study. The responses along with the perceptions of the student focus group that was instituted by the researcher were presented. The purpose of this research together with the problem in context was stipulated. Moreover, key probable causal variables were enunciated.

CHAPTER II

LITERATURE REVIEW

This chapter begins by providing the reader an overview of undergraduate student persistence research. The chapter builds on this groundwork and concludes by reviewing the literature addressing the relationship between certain variables and undergraduate degree completion.

Overview of Persistence Research

Now that the reader has an overview of undergraduate student degree completion in selected HBCU, it is important to provide an overview of persistence research. This section begins by giving the reader an introduction to persistence research and a flavor of the intricacies of such research. Next, important theorists and their models are presented followed by a review of persistence rates nationally.

Attrition among U. S. college students is one of the most researched topics in higher education (St. John, Paulsen, & Starkey, 1996; Stampen & Cabrera, 1986; Somers, 1996b, Tinto, 1993). Few problems in higher education have received as much attention. Generally, the studies of persistence pull from three disciplinary areas: sociology, human capital theory from economics and comprehensive models from education (Somers, 1996a). Several levels of analysis characterize persistence research: institutional, multi-institutional, and national (Somers, 1996b). Despite the fact that

persistence research has become one of the most massive areas of the literature on higher education (St. John, Paulsen, & Starkey, 1996), there is still much we do not know. This is due to numerous intricacies involved in studying the problem of student departure.

The Intricacies of Persistence Research

The issue of college student attrition is complex. In spite of the large cache of literature and numerous interventions on college campuses, student graduation rates have remained constant over the past decade (Gillespie & Noble, 1992). Vincent Tinto (1993), one of the most respected theorists in the area (Adelman, 1999; Gillespie & Noble, 1992; Kalsner, 1991; Thomas, 1988), asserts:

> Successful retention efforts are difficult to mount, if only because of our continuing inability to make sense of the variable character of student departure. Despite the extensive body of literature that addresses the question, there is still much we do not know about its longitudinal character and the complex interplay of forces which give rise to it. Furthermore, much of what we think we know is wrong or at least misleading. (p. 3)

Understanding retention of undergraduates is difficult due to the complex mixture of emotional, social and academic factors (Mallinckrodt & Sednek, 1987). Don Hossler (1986) adds:

> To believe there is one best way to increase retention is to fail to grasp the complexity of the issue. Institutions differ in degree level, missions

> and quality. The heterogeneity in student and institutional type indicates that a single model of student attrition will tend to work poorly in explaining the dropout process for individual students at particular institutions. (p. 49)

The problem is exacerbated by hitherto, lack of consistent operational definitions (Green, 1998), and was concentrated primarily on one type of institution (large public universities) (Adelman, 1999). Porter (1991) notes: "Persistence is an accumulative, multivariate process, and no policymaker can influence all the variables" (p. 87).

The development of national databases in recent years has assisted researchers in addressing parts of the complexities mentioned above. Indeed, researchers are beginning to collect the sorts of system-wide longitudinal data needed to sort through the complex interplay of individual forces which shape the behavior of student departure from higher education. Notwithstanding these efforts, the goal of understanding student departure remains distance away. Tinto (1993) enunciates it well:

> The answer to the question of student retention which we offer is not simple. It identifies no single path to enhance retention, nor promises that all admitted students can be retained. It argues there is no hidden magic, no unique formula or sophisticated machinery needed to retain students. (p. 212)

Given this introduction to the concept of student persistence and the complexity of the research, we now proceed to important models of student persistence.

Models of Student Persistence

The issue of student retention has been with us for decades. The first major study on student attrition was executed for the U. S. Department of Education on the entering classes of 1931 and 1932 (Hossler, 1984). Other studies followed in 1958 and 1962 (Perna, 1998a). Invariably, as college enrollment began to level off in the 1970s, college and university administrators started to show serious concern about student retention.

Much of the research on student persistence has focused on the characteristics of those who dropped out of college before graduation. The general assumption has been that if institutions of higher learning could identify the characteristics of students who withdraw, they would be able to develop interventions to meet the needs of these students. Hossler (1984) provides a summary of retention research by grouping studies into three major categories: "...student qualities at the time of matriculation, institutional traits or characteristics, and student experiences at the institution of attendance" (p. 91).

The study of student persistence behavior in higher education has benefited from the theoretical work of a number of notable individuals such as Spady (1970), Tinto (1975, 1987, 1993), and Bean (1980, 1983, 1985). The first fully developed theoretical model of student attrition was described by Spady in 1970. Spady postulated that students withdraw from college because of a lack of shared values or normative support. Tinto (1975) refined and simplified Spady's model and clearly distinguished academic and social factors. Tinto developed a longitudinal, explanatory model of the withdrawal

process that is based, to a larger extent, on the degree of fit between the student and the institution. Bean's (1980) research is compatible with Spady and Tinto's philosophy, but the assumption underpinning his concept is that student attrition is analogous to turnover in work organizations.

Tinto's (1993) student integration model provides an explanatory, predictive model of the dropout process which has at its root the concepts of academic and social integration in the institution. Tinto's model is the most recognizable concept in student persistence research. The researches deriving from the model is vast (Adelman, 1999; Park, 1994). The model is longitudinal and regards persistence or dropout behavior primarily as a function of the quality of a student's interactions with the academic and social systems of the college or university. The model emphasizes integration and commitment. Background characteristics interact and influence initial commitment to the goal of college completion and initial commitment to the institution. These commitments then influence students' intellectual development and academic performance, which define academic integration. Increased academic integration and social integration lead to greater goal commitment and institutional commitment, which reduce the probably of the student dropping out (Gillespie & Noble, 1992; Perna, 1998a; Tinto, 1993).

Bean (1980, 1983, 1985) fashioned an industrial model of turnover in work organizations to fit into colleges and universities. The assumption is that students and employees may leave their respective organizations for similar reasons. The model contains 12 determinants and two intervening variables. The 12 determinants include:

(a) grades, (b) practical value (the belief that one's education will lead to a career), (c) development (the desire for self-development), (d) routinization (repetitive work), (e) instrumental communication (being informed about issues on the campus), (f) participation, (g) integration, (h) courses (being able to take courses one wants to take, (i) distributive justice (being fairly treated on the campus). (j) Campus organizations membership (the number of memberships in campus organizations), (k) opportunity (the opportunity to transfer, and (l) marriage (the likelihood that a student will marry before graduation). In addition to these determinants, the two intervening variables are (a) satisfaction and (b) intent to leave. All 12 determinants influence satisfaction positively or negatively. Satisfaction, in turn, affects intent to leave.

There are differences between the Tinto and Bean models. While Tinto's model includes student background variables, Bean's does not (Thomas, 1988). Bean specifies intent to leave as the forerunner to a student's decision to remain or drop out of school. Tinto identifies goal and institutional commitment as the precursors of the decision. The connections in Bean's model are clearly delineated as one way, while the directions of some of the linkages in Tinto's model are multi-dimensional (Hossler, 1984). However, the two models share certain pertinent features. Both Bean and Tinto include variables that relate to a student's academic and social interaction with the institution. These variables are expected to influence a student's goal and institutional commitments (Tinto, 1975) or intent to leave (Bean, 1983) which, in turn, leads to the student's decision to remain or drop out of school.

These models have served as the conceptual framework for numerous studies and have been subjected to considerable empirical testing. Research findings have largely supported the predictive validity of the models (Cabrera, Nora, & Casteneda, 1992; Pascarella & Terenzini, 1991; Somers, 1995b). Nevertheless, the models have some limitations. St. John, Kirshtein, and Noell (1991) acknowledge that these models are frequently used for research on student persistence, but they have limitations when applied to national data. Gillespie and Noble (1992) emphasized that Tinto's model was an institutional model, not a model for general use across all institutions. Tinto (1993) agrees:

> It must be emphasized that while this conclusion, like those regarding other roots of attrition, holds for most students, it may not apply equally well for each and every subgroup of students. Though it is important to know of the broad forces that shape persistence in the aggregate, our knowledge of attrition must eventually be informed by the particular person and the peculiar setting with which we are dealing. (p. 69)

National Studies of Student Persistence

Although the models elaborated above have proved beneficial to individual institutions in their research, a comprehensive understanding of attrition was limited in scope, inadequate in design, or outdated. Much of the research lacked multi-institutional data, that is, information collected simultaneously from students at contrasting types of institutions. Longitudinal data was also lacking; information on the

ways in which students changes between admission and some subsequent point in time. Astin (1993) critiques further:

> Other features missing from the research include large and diverse samples of students and institutions; multiple measures of student development, including both cognitive and affective outcomes; multivariate designs for controlling differences among students entering differing types of institutions; and methodological provisions for separating college effects from maturational effects or the simple process of growing up. (p. 3)

Nationwide studies have proven beneficial in understanding the nature of student persistence and have overcome many of the weaknesses of the attrition literature. One of the earliest national studies was featured in the foundational work of Alexander Astin (1976) entitled *Preventing students from dropping out.* The book is based on data from the Cooperative Institutional Research Program (CIRP). The CIRP is a national longitudinal study of the American higher education system. Established in 1966 by the American Council on Education, the CIRP is now the nation's largest empirical study of higher education (Sax, Astin, Korn, & Mahoney, 1998) involving data on almost 1,600 institutions, over 9 million students, and more than 200,000 faculty. Astin (1976) concluded that by combining predictive factors, an aggregate picture of the personal and environmental factors that maximize a student's chance of completing an undergraduate degree program could be determined.

Astin, Tsui, and Avalos (1996) reported degree completion rates from a sample of 365 baccalaureate-granting institutions that participated in the Cooperative Institutional Research Program's annual survey of entering freshmen in the fall of 1985. Degree completion data were received on 75,752 of the 95,406 freshmen for which information was requested. The report covered degree completion for three time intervals—4, 6, and 9 years—characterized by institutional type, student gender, and student race. The data indicated that about two in five students (39.9%) were able to complete a bachelor's degree within four years of entering college. The number rises by five percent (44.9%) over six years. Allowing nine years increases the rate by slightly less than one additional percent to 45.7%. The data also showed that degree completion varies substantially by type of institution. The highest nine-year rate is in the private universities (72.0%), with the lowest rates in the public four-year colleges (38.4%) and universities (40.8%).

Another important national study is the *1989-90 Beginning Postsecondary Student Longitudinal Study* (BPS: 90/94). The BPS survey is the longitudinal component of the National Postsecondary Student Aid Study (NPSAS: 90), a nationally representative sample that includes students enrolled in all types of postsecondary institutions ranging from four-year colleges and universities to less than-two-year vocational institutions. The BPS: 900/94 cohort consists of students who enrolled in postsecondary education for the first time during the 1989-90 academic year. The cohort was surveyed in 1992 and 1994. Offering a wide range of information regarding student persistence and degree completion five years after members of the cohort first

enrolled in postsecondary education (Horn & Carroll, 1998). The findings of this research showed that 30.5% of 1989-90 beginning freshmen left postsecondary education before the beginning of their second year. Freshman persistence rates were the lowest among public 2-year institutions (55.5%) and highest at private, or not-for-profit, 4-year institutions (87.3%). The study (Horn 1998) stressed the importance of the first year experience:

> . . . the 1994 outcomes of the beginning students who persisted to their second year illustrate the importance of the first year with respect to eventual degree completion and long-term persistence. Among students who began their 4-year sector and who persisted to their second year, a majority (61%) had completed a bachelor's degree by 1994 and an additional 15% were still enrolled. (p. 13)

The American College Testing Program's (ACT) *National Dropout and Graduation Rates Report* (ACT, 1998; ACT 1996; Gillespie & Noble, 1992) provides important sources of persistence data (Geraghty, 1996). Each year since 1983, ACT has collected dropout and graduation data from most U. S. colleges and universities and reported it to admissions officials, academic counselors and more recently, the general pubic. ACT is the only organization that has collected and reported consistent national graduation data since the early 1980s (ACT, 1998). The 1998 report comprises data gathered between January and May 1998. ACT received dropout information from 2,545 institutions (1,625 four-year, 920 two-year) and graduation information from 2,396 institutions. The data revealed that the percentage of entering students who did

not return for a second year increased slightly over the years. Thomas Mortenson (1998), a higher education policy analyst, provides helpful longitudinal interpretation of the ACT data. His report on persistence rates in 4-year colleges concluded:

> Among the 1,625 4-year colleges and universities in the ACT survey, the average persistence rate was 73.6% in 1998. This was up from the record low of 73.1% in 1996, but below the record high rate of 75.5% attained in 1983, the first year of ACT report. Over the 16 years of the survey, average persistence in 4-year institutions have showed a downward slide and in 1998 they were about 2% below where they started in 1983. (p. 3)

The patterns of persistence vary between public and private colleges. In 1998, the average persistence rate in private institutions was 74.7%, compared to 71.3% in public institutions. During the period of the available data, the persistence rate was always higher in private colleges than in public colleges. However, over the last 16 years, the persistence rate for private colleges declined while it held somewhat constant in public institutions. Between 1983 and 1998, the average persistence rate declined by 2.5% among private colleges and universities, and declined by 0.1% among public institutions (Mortenson, 1998).

The growing use of institutional persistence and graduation rates as a measure of accountability, and the tendency in public opinion to blame colleges for students' failure to complete degrees, will enhance the importance of these nationwide studies (Adelman, 1999) and further fuel retention research. Tinto (1993) states:

> This explosion of research has served to refine, supplement, and in some cases, challenge our understanding of the complex forces shaping student retention. It has given rise to a much needed debate in both research and policy circles about the adequacy of past theory and the effectiveness of existing programs to enhance student retention on campus. (p. ix)

The growing accountability factor driving persistence research has generated interest in its impact upon undergraduate degree completion. This topic is becoming increasingly important as the general pubic, federal and state financial aid programs, and other supporters of higher education including philanthropic organizations have began to pay close attention to degree completion as a factor when deciding whether to grant support to certain colleges and universities.

Student Support Services

Tony Zeiss (1995) purports:

> Leading a college in a dynamic environment is dangerous and rewarding. The challenge is to progress despite restrictive processes and provide more flexibility in services while holding fast to teaching excellence. Leaders will be able to meet the challenges of the new millennium if they remain committed to their primary customers: *students*. (p. 54)

Similarly, retaining students will be necessary to ensure a competitive workforce. Murdock and Hoque (1999) believe, "This will require providing students with better

opportunities throughout their educational careers and providing opportunities for them to strengthen their skills through remedial education" (p. 12).

Also, Tinto (2002) discovered that creating learning communities within institutions have been shown to meet student needs. He surmised that "learning communities are a kind of co-registration or block scheduling that enables students to take courses together" (p. 1). Ultimately, there remains a duty placed upon students to engage themselves in the learning process. Mckeachie (1999) showed his agreement with this concept by stating:

> The task of the successful student in peer learning is to question, explain, express opinions, admit confusion and reveal misconceptions; but at the same time the student must listen to peers, respond to their questions, question their opinions, and share information or concepts that will clear up their confusion. (p. 164)

In addition to state level retention initiatives designed to enhance institutional achievement, individual institutions have implemented programs to enhance student degree completion. Skolnik and Giroux (2001) show, "At this level, the Vanguard Learning Colleges throughout the nation and many other community colleges have introduced numerous reforms intended to make them more learning centered." For instance, the Community College of Denver, Colorado has been recognized for its remarkable institutional achievement. In particular, the Community College of Denver (CCD) documented student goal attainment, degree completion rates, persistence and

other outcome measures (Roueche, Ely & Roueche, 2001). In their work, *In Pursuit of Excellence*, these authors substantiate CCD's accomplishments by noting the following:

- Between 1987 and 1998, CCD increased the total number of graduates by 81%.
- Between 1987 and 1988, minorities as a percent of total graduates more than doubled from 20% to 45.65%.
- Between 1987 and 1998, CCD nearly quadrupled the number of graduates of minorities, from 83 to 318 graduates. (p. 70)

Randell (1980) conducted a study to evaluate the effects of three freshmen orientation programs on academic achievement, self–concept, personal values, and study skills. The dependent variables of the study were student achievement, self–concept, personal values, and study skills which related to the independent variables of the three freshmen orientation programs. A sample size of 150 college students were used and identified as being target or non-target based on their expected academic achievement. The students were randomly assigned to one of three treatment conditions: affective, career, or traditional. Each treatment condition was arranged as a three-credit hour course that met for one hour a week during spring of 1979. At the end of the semester, each student was identified as either on or off probation. The findings of the study revealed no significant difference in probation rates for target and non-target students in each of the three developmental courses; there were no significant differences in self–concept over time between target and non-target students; there were no significant difference in self-oncept among the three developmental courses; there

were no significance in personal values over time between target and non-target students in each of the three developmental courses; and there were no significant difference in study habits and attitudes between target and non-target students in each of the three developmental courses.

Faculty–Student Interaction

Weaver and Qi (2005) conducted a study to determine if formal and informal structures, as well as students' attributes directly or indirectly influence classroom participation. Formal and informal classroom structures comprised class size, professor - student relations, and students' peers. Whereas students' attributes relates to students age, gender, and primary characteristics that affect students' behavior such as class preparation and confidence they bring to the classroom. The researcher utilized the path model and simple regression analysis in their study. The path model were used to estimate the independent variables: students perceptions of the formal and informal structures in addition to students attributes directly or indirectly influence the dependent variable: class participation. Class size and opportunity, professor as the authority of knowledge, faculty student interaction, and participation were measured to ascertain whether large class size and lack of opportunity hindered class participation. Also, student attributes were measured to see if they perceive their role as passive absorbers of authority knowledge or if they are willing to openly engage the professor by questioning the professors' views. The measure of the professor student interaction dealt with the extent of academic-related faculty–student interaction beyond the classroom. Relating to formal structure, the study found that large class size and lack of

opportunity could exacerbate student fear of the professor criticism and peer disapproval and thereby hindering classroom participation. Similarly, the influence of peer existed as a way of forcing conformity with classroom norms that defines acceptable behavior. While certain rules seemed to discourage too much participation, they do not necessarily invite complete withdrawal from participation. Regarding student attributes, the study found that age was a potent a predictor of classroom participation. Older students were more likely to participate than younger ones. Also, majority of the students both traditional and nontraditional were found to be bowing to peer pressure suggesting that informal relationship affect student performance. However, the study had key limitations. Firstly, students were asked to report their own level of participation. Such a model creates opportunity for exaggeration by the student of reported participation. Secondly, the study was only limited to public universities and colleges in the mid west that mostly commuter based. Nevertheless no HBCU was considered.

International Students

Carini, Kuh, and Zhao (2005) studied the extent to which international students engaged in effective educational practices. In carrying their research, they compared the activities of international undergraduate students with the American students in selected areas that are related to students learning, personal development, and satisfaction with college. They also considered whether the background of international students contributed in any form, to shaping the students engagement, satisfaction, and gains. The researchers utilized the regression analysis method to establish whether the

dependent variables: active and collaborative learning; student-faculty; supportive campus environment; diversity experiences, community service; computer technology use; time spent socializing and relaxing; and student-reported gains in general education, in personal and social development, in job related skills, and in student satisfaction, are influenced by the independent variable: the international student status. The study showed that international first year and senior undergraduate students scored relatively higher than their American counterparts on the level of academic challenge, active and collaborative learning (senior international students reported less engagement), student-faculty interaction, and technology use. International students made more advances in personal and social development, general education, and job-related skills. Nonetheless, first year international students spent less time relaxing and socializing and were less satisfied with their college experience compared with American students. Similarly, the study use race/ethnicity as proxy for the international students region of origin and cultural environment to reveal that black and white were more interested in diversity related activities than Asian students. However, the study was limited in that it considered only one pre-college college variable: parental education level. Motivation, language proficiency, and academic preparation may influence the college experience of both international and American students.

Student-Peer Group Interaction

Antonio (2004) examined peer group influence in college. The study focused on student interpersonal environment, with particular attention paid to the role played by racial diversity in those environments. In his research, the author drew similarities from

the "frog pond concept" of (Pascarella & Terenzini, 1991). The frog pond effect is based on the Reference Group Theory, which stipulates that self-evaluation is based upon an individual's relative position in comparison to others. By focusing on friendship groups, the study concentrated on the normative context of informal peer groups and implicitly, the socialization process of interpersonal interaction. The study used multiple regression methodology to analyze the dependent variable: student academic self-concept as it relates to the independent variable: the degree of diversity within the interpersonal group which the student belonged. The degree of diversity in the study refers not only to racial and regional diversity but also the academic abilities and aspirations of friendship groups. Invariably, the study found that students who have best friends with relatively high levels of intellectual self-confidence were more likely to be more self-confident compared to students with less confident friendship groups. Hence, the study surmised that elements of the interpersonal environment significant influences on socialization in college. However, the study was limited in that it only considered data collected from on one college in the western United States.

Lundberg (2003) analyzed the influence of time-limitation, faculty, and peer relationships on adult student learning. The study involved 4,644 undergraduate students completed the College Student Experience Questionnaire (CSEQ) during the 1998–1999 academic years. The institutions were principally comprehensive colleges and universities. Two thousand, five hundred and ninety four (2,594) women and 2,050 men were surveyed for the study. However, adult students represented 49% of the sample studied. The independent variables in the study comprised: Effort in reading

and writing, frequency and quality of relationship with peers and faculty, time-limiting characteristics, and background characteristics; while the dependent variable was student learning. A multiple linear-path method was employed to determine whether the dependent variable has a direct or indirect relationship to the independent variables. The revealed that younger students (20-23), part-time students and commuting students had importantly less learning gains attributable to the indirect effect time-limitations. However, students over 30 years and older experienced no effect of time-limitation on their learning even though they showed negative effect on their learning gains when enrolled part-time. The study was rather limited in that it was conspicuously skewed in favor of adult students.

Student Self-Efficacy

The premise for self-efficacy theory is found in social cognitive theory, especially the work of Albert Bandura (Pajares, 2002). Bandura (1986) asserted that a reciprocal relationship exists between personal factors, environmental factors, and behavior. The relationship is illustrated by the model of reciprocality relationship (see Figure 1). Bandura, (1997) defined self-efficacy as: "Beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Understanding self-efficacy can enable teachers to engage students in curriculum activities. Students who are efficacious are more likely to work hard, to persist, and to seek help in order to complete challenging tasks. Efficacious students often achieve their goals. Hence, in an educational setting, self-efficacy can influence achievement and attitudes (Pajeras, 2002).

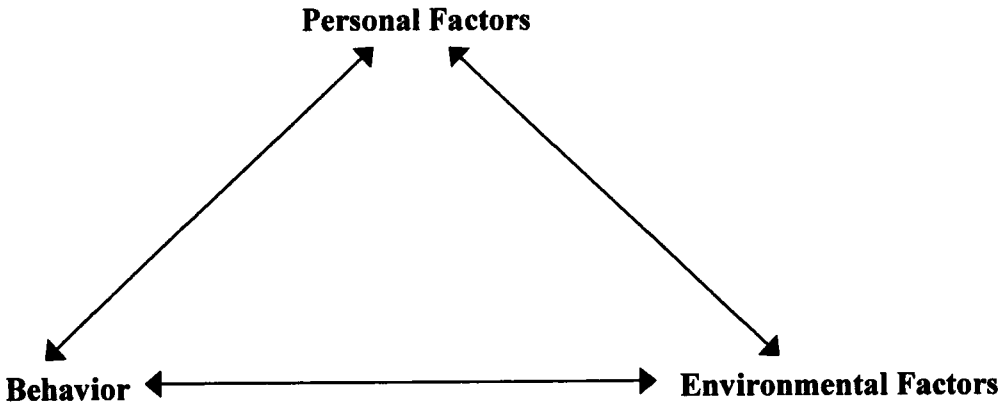

Figure 1: Model of Triadic Reciprocality (Bandura, 1997)

Self-efficacy is influenced by mastery experiences, vicarious experiences, social experiences, and physiological or emotional states (Bandura, 1997). So, previous personal successes, watching others succeed, being told that he/she can succeed, and positive biological feedback can all increase a student's self-efficacy. It is important to note that influencing self-efficacy by vicarious experiences can occur by observing models, particularly peer models (Schunk, 2000). Hence, a student's self-efficacy can be increased by observing another student, viewed as a peer, succeed at a similar task or in a similar condition. Self-efficacy is domain specific, which means that a person can be efficacious with regards to one topic or condition and non-efficacious about another (Pajares, 1996). For instance, it is plausible may be efficacious about learning in a face-to-face classroom, but non-efficacious about distance-learning environment.

In a study of web-based course, Lim (2001) examined factors that explain the variance in student attitudes. The researcher included demographics variables, self-

efficacy, and numerous measures of computer experience when constructing the model, self-efficacy was measured by using an adaptation of the Computer User Self-Efficacy Scale (Eachus & Cassidy, 1996). A researcher-developed instrument was used to assess student satisfaction. Lim concluded that learner self-efficacy, especially computer self-efficacy, was the only statistically predictor of student satisfaction in the presence of other variables included in the study.

Laughlin (1998) commissioned an evaluative study of a distance education program. The purpose of the study was to examine student self-efficacy as it relates to student attitudes towards whether the objectives of each course were met. Her sample included 27 recent graduates from the program. The researcher developed an instrument to assess both student self-efficacy and attitudes. This study concluded that student self-efficacy, related to meeting course objectives, was a valid means of evaluating a distance education course.

Pajares (1996) commissioned a study to test predictive role of gifted student self-efficacy on academic performance (mathematics grade point average [GPA]) and to discover whether differences exist in academic performance owing to group membership or sex. The study utilized path analysis to examine the role self-efficacy play in the mathematical problem-solving of middle school gifted students (n = 66) compared to regular education students (n = 232) in algebra classes. The result indicated that self-efficacy was a significant predictor of performance for both groups. Gifted girls surpassed gifted boys in performance but did not differ in self-efficacy.

However, gifted students reported higher math self-efficacy and self-efficacy for regulated learning as well as lower math anxiety than regular education students.

Personality Types

Foremost (1998) examined the relationship between personality types and pre-college attributes that influence the persistence of college freshmen. A sample of 378 full time students at Wilkes University completed the College Student Inventory (CSI) and the Myers-Briggs Type Indicator (MBTI). The Pearson Product–Moment Correlation and stepwise regression were used to analyze and interpret relationship between the dependent variable: student persistence and the independent variables: personality types and pre college variables. The result of the study revealed that students who make decisions by perceiving rather than by judging were more likely to drop out of college. Introvert personality types had higher educational stress. However, extrovert types who make decision by perceiving have higher academic difficulties. The stepwise regression result showed that the significant variable that influences persistence is dropout proneness.

In a study of graduate students at the University of Florida, Irani, Scherler, Harrington, and Telg (2001) used a causal comparative design to explore student demographic factors and personality type are related to student attitudes and achievement. Personality type was measured using the Myers-Briggs Personality Type Indicator. Attitudes were assessed using a modified version of Biner's (1993) attitudinal instrument. Achievement was represented as course grade. The researchers

collected data from 39 students. They concluded that personality type was correlated with student attitudes and achievement.

Instructor Teaching Style

Studies show that student motivation and performance improves when instruction is adapted to student learning preferences and styles. Educators have the responsibility to understand the diversity of their students and to present instructions in a variety of ways in order to accommodate all learners' preferences.

Blanch-Payne (2000) conducted a study to discover the impact of congruence versus incongruence of students' learning styles with their professor's teaching styles on student achievement. A sample size of 169 undergraduate students who enrolled in introductory psychology classes was studied. A qualitative study was conducted using the Kolb Learning Style Model (K-LSI 111, 1999). Students were categorized according to the four Kolb Learning Model (accommodator, diverger, converger, or assimilator) then faculty members were assigned according to the learning mode of the student. Thereafter, a comparison was made between the independent variables: faculty style and student learning style. The dependent variable was student achievement. The study found that students at the collegiate level are better able to adapt to a variety of teaching styles be it congruent or incongruent.

Einarson (2001) examined the influence of personal disciplinary and organizational variables on the use of active teaching styles among undergraduate faculty in four types of post secondary institutions: doctoral granting, comprehensive, liberal arts, and associate of arts. The path analysis methodology was used to relate the

influence of the dependent variable: instructor's teaching method to the independent variables: personal, disciplinary and organizational factors on all four types of institutions that were studied. The study revealed that the more academic administrators are interested in promoting the use of active teaching methods among faculties, the more likely they are to employ the method.

Spoon and Schell (1998) investigated the influence of student learning styles and teacher teaching styles on the achievement of basic skills. The investigators examined the nature of the learning experience when congruence and incongruence between learning style of the student and the teaching style of the teacher are evidenced. The population of the research consisted of adult basic skills students (N = 189) and teachers (N = 12) in a public, coeducational, two-year technical institution in North Central Georgia. The adult basic skill population comprised of 119 females and 70 males. The mean age of the student was 34.75. A three way Analysis of Variance was used to investigate whether differences between groups had resulted in an observed difference on the dependence variable. Two categorical independent variables were perceived learning style and teaching style as well as student age, gender, and ethnic origin. Student achievement was the dependent variable. The study contradicted other studies that suggested that collaborative teaching is appropriate learning mode for adults.

Learning Styles

People have preferred ways of absorbing, processing, and retaining information (Schunk, 2000). Not synonymous with academic ability, this preference is often called a learning or cognitive style. The term learning style and cognitive style are often used

interchangeably (James & Gardner, 1995). Gregorc (1992a) defined learning styles as the way that people perceive, sort, absorb, process, and retain information. Goodenough (1981) posited that cognitive styles are individual differences in how people process information. Similarly, James and Gardner (1995) defined learning style as "the ways individual learners react to the overall learning environment make up an individual's learning style" (p. 19). Dunn and Dunn (1993) added that both biological and developmental characteristics contribute to a student's learning style.

Numerous instruments exist to assess different aspects of learning styles. James and Gardner (1995) presented a model of learning styles with three dimensions. The perceptual dimension identifies ways that people assimilate information from the physiological or sensory input. The cognitive dimension addresses how people store and retrieve information. The affective dimension encompasses personality and emotional characteristics. These dimensions are useful to differentiate between various instruments used to assess learning styles.

The perceptual dimension focuses on how people collect information from the environment (James & Gardner, 1995). This includes input from the five senses and input from physiological aspects, such as speech or movement. Obrien (1989) identified three perceptual modalities of auditory, visual, and kinesthetic that address student's sensory preferences for inputting information.

The cognitive dimension addresses a student's way of perceiving, thinking, problem solving, and remembering (James & Gardner, 1995). One approach to assessing cognitive learning style uses a dichotomous scale of field-dependence and

field-independence as reported by the Group Embedded Figures Test (GEFT) (Witkin & Goodenough, 1981), whereas others have proposed that assessing cognitive learning styles requires a more multidimensional approach. Gregorc (1982b) developed the Gregorc Style Delineator with the dimensions of Concrete Sequential, Concrete Random, Abstract Sequential, and Abstract Random. Kolb (1984) created the Learning Style Inventory (LSI), which classifies students as having convergent, divergent, assimilation, or accommodative learning styles.

Freeman (1995) used a quasi-experimental study to compare an interactive video-conferencing delivery to a traditional face-to-face classroom in medical technology courses. Her independent variables were the delivery method and student learning style, as measured by Kolb's Learning Style Inventory (Kolb, 1984). The dependent variable of this study was achievement, which was measured by post-tests and a national certification exam. This study reported a statistically significant difference in achievement in only one of eight topic areas when using delivery method as the independent variable and no significant differences when using learning styles as the independent variable.

Loomis (2000) conducted a study to determine the relationship between learning styles and achievement in an undergraduate research methods course. Learning styles were assessed using the Learning and Study Strategies Inventory (LASSI), which consists of ten scales, each measuring a different component of learning. Scores on class assignments and exams were used to determine student achievement. Five of the

ten LASSI scales had significant correlations with student achievement. He concluded that student learning styles played a crucial role in student success.

Becker and Dwyer (1998) used a quasi-experimental design to investigate the effects of learning on attitudes towards a delivery method that incorporated an online groupware project into face-to-face class. The researchers assessed learning styles using the Individual Difference Questionnaire, which classifies students as either verbal or visual learners. They assessed student attitudes towards an instructional method with an attitudinal instrument. The result of this study indicated that student with a visual learning style perceived the groupware software to be more effective.

Riddle (1994) examined a series of student characteristics in an effort to explain the variance in achievement and attitudes of undergraduate students in Maine and North Dakota. She used the Group Embedded Figures Tests to determine learning style and course grade to measure achievement. The results showed that the state of residence and field dependence accounted for 45% of the variance in course grade. However, learning style was not statistically significant when predicting student achievement.

Student Motivation

Student motivation has been shown to influence student attitudes and achievement in a distance-learning environment (Berg, 2001; Shih & Gamon, 2001). As with learning styles and self-efficacy, a deficiency exists in research that examines student motivation as it relates to attitudes and achievement when illustrated web lecture is used.

Motivation plays a crucial part in learning (Bandura, 1997; Schunk, 2000). Motivation serves to engage students in activities that help increase learning. People with high motivation tend to expend more effort when they encounter difficult material, instead of quitting. Motivation is also related to the use of cognitive and meta-cognitive strategies (Garcia & Pintrich, 1995).

Fjortoft (2005) conducted an investigation in order to describe and categorize students' motivations for attending classes. The study was qualitative in nature and involved five focus groups involving 60 second-year and first-year pharmacy students. The independent variables in the study involved class scheduling, class content, faculty behavior, student personal logistics, and class size. Correspondingly, the dependent variable was class attendance. The study revealed that the most important motivation that students considered in attending classes were that handouts were not inclusive and faculty present new information in class, and that faculty present information that can be useful in solving real world problems. The study was limited due to the small sample size. The study only selected second- and first-year professional students at an urban commuter college.

Using mixed methods, Mauldin (2001) conducted a study to determine the dimensions that increase the effectiveness of courses, as measured by student attitudes. Both focus groups and surveys were used to collect data. Mauldin's sample included undergraduate students enrolled in a health science program. Results of this study revealed that student attitudes of the perceived effectiveness of a course are influenced by motivation.

Zalenski (2001) examined a different measure of success in a course, attrition. The sample of this study included 815 undergraduate students in a liberal arts program. The researcher reported that motivation, or lack of motivation, can also affect graduation and attrition rates.

Class Size

Hill (1998) studied accounting students at the university level. While controlling for instructors method, examination content, and university setting, she discovered that students in large classes outperformed students in small classes. Class size did not affect the student interest in accounting or overall perception of the instructor's effectiveness. However, there was a potential negativity of large class size: students in the large class of Principles of Accounting 1 attended fewer class meetings. Lower attendance may generate a negative achievement owing to large sections, since attendance is highly correlated with achievement.

Hancock (1996) examined nine sections of a college statistics class—same instructor and text, standardized tests, and grading procedures. Six of the "normal" sections averaged 39 students; three "mega sections" averaged 118. Hancock found no significant difference in student achievement between the two section types.

Student Demographics

Leppel, Williams, and Waldnuer (2001) investigated the effect of socioeconomic status and parental occupation on the choice of college major. The dependent variable on the study was the student major while the independent variable was the student family background. A quantitative multinomial analysis was utilized to

analyze the data obtained from the National Center for Education Statistics (NCES). One of the findings of the study was that students who consider it very important to be wealthy are more likely to choose a major in business.

Rucker (2003) studied the effects of academic persistence, course type, and the length of the course on the academic achievement of African-American adult female students. The purpose of the study was to determine the impact of accelerated courses on students' academic achievement. The research group comprised of African-American female students who were 25 years or older. Three independent variables: academic preparation, course type, and course length were examined. The dependent variable was student achievement. The methodology in the study involved ANOVA that was longitudinally measured in order to establish the relationship between the dependent and independent variables. The result revealed a significant relationship between dependent and independent variables.

Lee (1996) conducted a study to (a) identify the personality, academic, and social background factors which are most closely related to academic achievement of college sophomores, (b) to correlate academic achievement of a heterogeneous sample of high, moderate and low achieving college sophomores, and (c) to determine which among the variables selected best discriminate between the high and low achievers. A random sample of 172 college sophomores was selected from a representative group of colleges and universities (public, private, predominantly black, predominantly white, and two four year-year institutions in Georgia). Independent variables were mother's and father's education, family income, socioeconomic status, student's number of years

enrollment in a college preparatory program, first quarter or semester grade point average (GPA), SAT verbal scale score, estimated high school GPA, achievement motivation, self–concept, locus of control (two measures) and introversion – extroversion. The dependent variable was the students' current GPA. A Pearson Product–Moment method was used to determine the correlation of dependent variable with the independent variables. It was discovered that SAT verbal scores had a significantly positive correlation with students' academic achievement.

In a study of high schools student enrolled in a foreign language course delivered by satellite, Oxford, Park-oh, Ito, & Sumrall (1993) reported that gender are inconclusive on student achievement in a distance course in the presence of other variables. Scores on the Japanese Language Achievement Test were used to assess achievement. The researchers reported that there was a significant difference between males and females on motivation scores. They also reported a different, but not statistically significant, score in achievement between males and females.

Wetzel, O' Toole, and Peterson (1999) conducted a study to discover the factors that affects student retention probabilities. The independent variables for the study were enrollment status, change in cumulative GPA, ratio of current semester hours earned to hour attempted, current academic status, current amount of loans, current amount of work study award, real change in tuition from previous year, marital status, race, part-time status, and evening or day student; and dependent variable was student persistence. The sample consisted of the entire set of freshmen and sophomore student records at Virginia Commonwealth University between 1989 and 1992. Using a

regression, logistic analysis and maximum likelihood as empirical models, the result of the study indicated that academic progress as measured by GPA drives the attrition/retention decision.

Student Pre-College Characteristics

Hoffman and Lowitzki (2005) examined the differences between white students' SAT scores and high school grades and those of minority students as predictors of college involvement and success at a private Lutheran University in the South West. The purpose of the study was to understand the influence of various pre-college characteristics on student involvement and success. Five hundred twenty-two (522) students completed the Student Opinion Survey (SOS) to test for student achievement and satisfaction. A confirmatory factor analysis was used to test the independent variables SAT scores and high school grade against the dependent variables: student success and involvement. The study showed that high school grades were strong predictor of student success and involvement by minority students than white students.

Financial Aid

Not only are colleges and universities facing scrutiny about their persistence rates, but they are also challenged by a growing public concern about the pricing and financing of higher education. Rates of increase in higher education have far exceeded those of the consumer price index and family income (College Entrance Examination Board, 1998a). Paying for a college education, even at 4-year colleges and universities,

now ranks as one of the most costly investments for United States families (U. S. General Accounting Office, 1996).

Additionally, higher institutions are specifically interested in the impact of their financial aid programs. Outlays of institutional financial aid have become a growing portion of the budgets of both public and private institutions. Over the past two decades, tuition increased more rapidly than inflation or family income (Mulugetta, Saleh, & Mulugetta, 1997). As the growth in federal and state aid declined, higher institutions are being forced to augment their financial aid programs with institutional dollars. In view of the magnitude of investment in which it is targeted, the role of student aid on facilitating persistence in college and universities constitutes a major policy question (Cabrera, Nora, & Castandea, 1992).

Powell (2002) investigated the relationship between financial aid and freshman persistence. The population studied involved 1208 first time, full time freshmen enrolled at a private mid-western Liberal Arts college between fall 1994 and fall 1998. The dependent variable was persistence while the independent variable was financial aid. A correlation analyses methodology was used to compare the dependent variable to the independent variable. The study found that students with lower expected family income and higher unmet needs were less likely to persist. Thus financial aid alone is not adequate to overcome the effects of low family income on persistence.

Somers (1995a) developed and tested a model that used existing institutional data to study persistence. The model examines the relationships between background, achievement, financial aid, and college experience using three logistical models: first-

time attendance, within-year persistence, and year-to-year persistence. Regression techniques are used in the model to find the "best-fit" between the independent and dependent variables. For a model where outcome variable is dichotomous (persister or non-persister), the delta-P statistic provides a measure of the extent to which the outcome variable is likely to change if the individual has the characteristic being measured. The model was used to study 1,473 students entering fall, 1989 at an urban public university. The study found that low-income aid applicants did not persist as well as others when the type and amount of aid were considered. It was also revealed that the total sum of aid offered was a significant factor in student persistence.

Leslie and Brinkman (1988) conducted a meta analysis of 62 persistence studies concluding that persistence is enhanced by larger amount of aid and that when compared to one another, grant and scholarship aid have a more positive effect on persistence than do loans.

Green (1998) examined a sample of 563 first-time freshmen from 104 member institutions of the Coalition of Christian Colleges and Universities. He utilized t-tests and Discriminant analysis and found that the total effect of financial aid on persistence was marginally positive, with grant aid having a significant impact on persistence. Loans had no relationship with persistence.

Some institutional studies have found that the receipt of general financial aid had no significant influence on student persistence and degree completion (Boivin, Beuthin, & Hauger, 1993; Cabrera, et al, 1992; Munson, 1997; Sadler, Cohen, & Kockensen, 1997; Stampen & Cabrera, 1996; St. John, 1998). Five of the six studies

examined freshman, while St. John (1998) studied sophomores and juniors. The researchers represented a mix of public and private universities. The number of participants in these studies ranged from 300 to 5,000.

Campus Safety

Currie (1994) studied 208 freshman college students at the University of British Columbia. The research utilized a quantitative methodology to analyze a questionnaire dealing with student perceptions of campus safety particular around incidents of violence or threats of violence, and students' attitudes towards sexual assault. The study focused on mobility around campus; and found that students' mobility and use of libraries, parking lots, and the student union were directly related to students' feeling of safety on campus. Women students, in particular experienced limited mobility around campus because of fear for their safety.

Janz and Pyke (2000) conducted two studies to measure the climate that students heard about on campus, sexist attitudes, treatment they experience personally on campus, and safety on campus. One hundred ninety- two (192) undergraduate and graduate students participated in the first study, while the second study comprised of 327 undergraduate and graduate students from the same university. They found that women students perceived the campus climate to be "chillier than males." Additionally, students' perceptions of chilly climate were significantly related to feelings of alienation.

Summary

his chapter presented a historical perspective of persistence research. The intricacies of persistence research along with key models of student persistence were discussed. National studies of student persistence in addition to current literature covering key variables in the study were justifiably illustrated.

CHAPTER III

THEORETICAL FRAMEWORK

This chapter examines the theoretical framework. The theoretical framework deals with the independent variables that include faculty teaching styles, student learning styles, student self-efficacy, student motivation, student support services, student demographics, and campus safety; and how they relate to the dependent variable of student degree completion (see Figure 2).

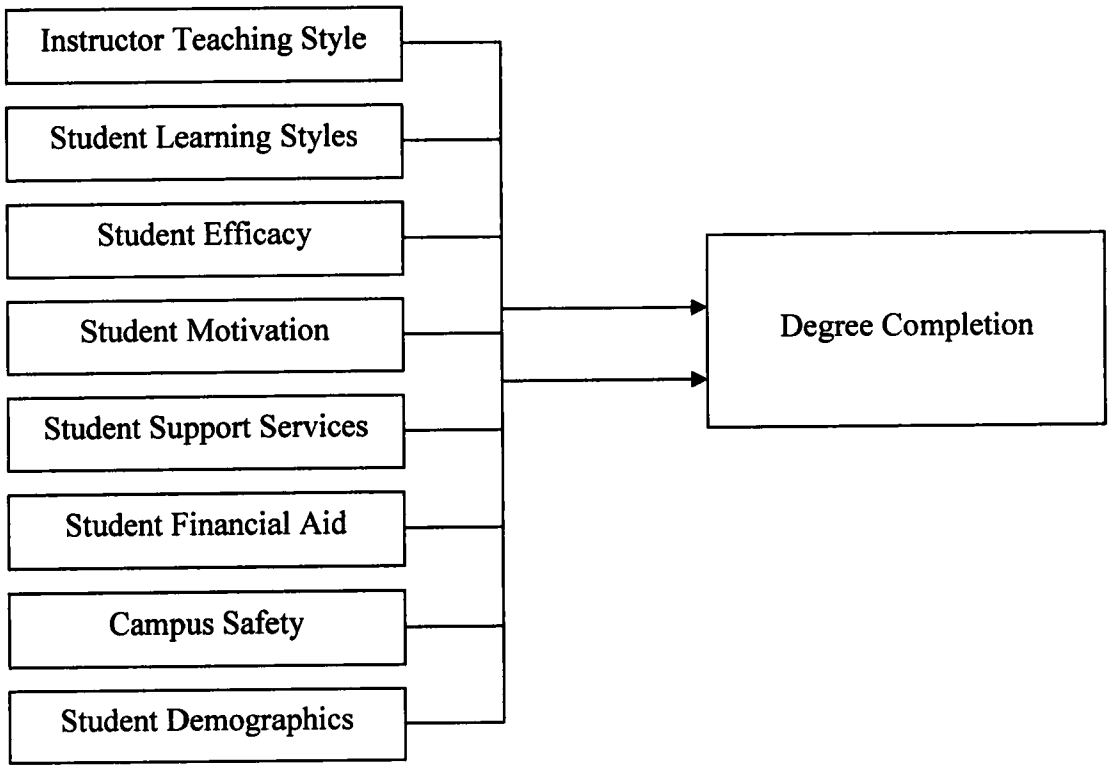

Figure 2. Relationship Between Variables

Definition of Variables

Faculty: Instructors in the School of Business administration, School of Education, School of Arts and Sciences, and School of Social Work at the Southeastern Historically Black University that hold professional qualification and are charged with the primary responsibility of teaching.

Student: In this study, the term strictly refers to undergraduates in the School of Business, School of Social Work, School of Arts and Science, and School of Education who are currently enrolled in undergraduate degree programs at the Southeastern Black University.

Staff: Southeastern Historically Black University employees who do not carry out instructional delivery in the classrooms.

Instructor: Full time and adjunct faculty members who are engaged in instructional delivery.

Class Size: The variation in the number of fully registered students committed to attending a given class at the Southeastern Historically Black University during a particular period.

Persistence: Refers to the likelihood that the Southeastern Historically Black University students when faced with obstacles or adversities would keep trying or give up and surrender.

Student Learning Style: The perceived style that addresses the propensity of students to learn such as

1. Sensory—sights, sounds physical sensations, or intuitive—memories, ideas and ideas.
2. Visual—pictures, diagrams, graphs, demonstrations, or verbal—sounds, written and spoken words and formulas.
3. Collaborative learning.

Student Success: Perceived academic achievement leading to degree completion.

National Center for Education Statistics: Agency within the United States Department of Education that maintains vital education data such degree completion rate, persistence rate, and student gender from school districts and colleges throughout the country.

Attitudes: Southeastern Black University Students' viewpoint or disposition toward their academic work (Gall, Gall, & Borg, 2003).

Delivery method: The means as perceived, by students that is used to transmit content from the instructor to the student (Simonson, Smaldino, Albright, & Zvacek (2003).

Face-to-face instruction: The classroom setting at the Southeastern Historically Black University that instructors and students meet for academic work (Simonson et al., 2003).

Historically Black University (HBU): The object of this study.

Learning Activity: The student perceived educational component of a lesson that involves students interacting with the instructor, other students, and content, or a

combination of the three (Newcomb, McCracken, & Warmbrod, 1993). In a distance setting, students also interact with the technology used to deliver the instruction (Hillman, Willis, & Gunawardena, 1994; Moore, 1989).

Internships: A carefully monitored work or service experience in which a student has intentional learning goals and reflects actively on what she or he is learning throughout the experience.

Practicum: An experience in which a student spends a period of time in a workplace setting for educational purposes. The practicum usually does not offer pay (unless it is tied to the College Work Study Program) and is usually completed as part of a stand-alone academic class.

Cooperative Education (Co-op): A career-related educational opportunity designed to help students gain work experience before they graduate. Co-op students are almost always paid for the work that they do and may earn academic credit for the experience. In most cases the student refrains from taking classes for one or two semesters while they work at their co-op placement, and works and learns in alternating cycles.

Independent Variables

Student Support Services: Perceived services that Southeastern Historically Black University makes available to the students in order to promote retention and degree completion such as tutorial services, counseling and advisement, placement services, learning center, and orientation.

Instructor Teaching Style: The student perceived mode of instructional delivery by the instructors such as lectures, cooperative (group interactions and assignment) and the like.

Financial Aid: Forms of financial assistantship that a student at Southeastern Historical Black University is able to obtain in order to meet the student's tuition, room and board, and other living expenses. It includes loans from the government, institutional and departmental scholarships, grants, and others.

Student Self-Efficacy: Students' confidence about their capabilities to succeed or perform at an appropriate level in their academic work (Schunk, 2000).

Student Motivation: Students' propensity to graduate on time or earlier than expected. Motivation is the process whereby goal-directed activities are instigated and maintained by students (Schunk, 2000). A student with a high degree of motivation towards success in a course will likely be more successful.

Student Demographics: Student gender (male, female), family status (low income, middle class, etc), student status (freshman, sophomore, junior and senior).

Campus Safety: The general condition whereby Southern Historical Black University students are able to move freely around campus at any given period of the day and night without being assaulted, threatened, harassed or victimized.

Dependent Variable

Degree Completion: Propensity to complete an undergraduate degree requirement within 4 years, 5 years, or 6 years at the Southeastern Historically Black University. In this study, Degree Completion is the lone dependent variable.

Research Questions

RQ1: Is there a significant relationship between instructor teaching style and degree completion?

RQ2: Is there a significant relationship between student learning styles and degree completion?

RQ3: Is there a significant relationship between student efficacy and degree completion?

RQ4: Is there a significant relationship between student motivation and degree completion?

RQ5: Is there a significant relationship between student support services and degree completion?

RQ6: Is there a significant relationship between student financial aid and degree completion?

RQ7: Is there a significant relationship between campus safety and degree completion?

RQ8: Is there a significant relationship between student demographics and degree completion?

RQ9: Is there a significant relationship between student demographics: gender and degree completion?

RQ10: Is there a significant relationship between student demographics: school, major, and degree completion?

RQ11: In what Factor would student self-efficacy, student motivation and degree completion be placed?

RQ12: In a Multiple Regression analysis of the data, what would be the independent variables that would explain the dependent degree completion?

Summary

Chapter III provided the Theoretical and Conceptual Framework for studying this topic. Definition of variables was presented in conjunction with the independent and dependent variables. Moreover, the relationship between the dependent and independent variables was established.

CHAPTER IV

RESEARCH DESIGN

The design employed in this research was a Correlation Design. The Pearson Correlation design analyses the relationship between dependent and independent variables in their natural settings. As such, the relationship between the dependent (Degree Completion) and the independent variables (Instructors Teaching Style, Student Learning Styles, Student Self-efficacy, Student Support Services, Student Motivation, Financial Aid, Campus Safety, and Student Demographics) was established. This study showed indifference to the unique characteristics of each individual variable relative the other variables in the study. Also, the researcher commissioned a focus group in order to discover other variables that might be pertinent to the study.

Sample

The sample was purposefully selected to include students drawn from schools that comprised of the School of Arts and Science, School of Education, School Business Administration, and School of Social Work. In accordance with purpose of the study, criterion was set in order that appropriate participants were selected from sample groups. This method allowed representation of individual groups within a greater population and identifies variations and commonality among the groups (Kelly, 1999). The participants comprised 61 from the School of Arts and Science, 19 from the School

of Education, 42 from the School of Business, and 29 from the School of Social Work. Accordingly, the breakdown of the participants was 45, 14, 34, 41, and 17 for years 1, 2, 3, 4, and 5 or more, respectively. Thus, a total of 151 participants completed the questionnaire (n=151, see Table 3). The sample size of this study is conducive to a detailed examination of various student perceptions as well as a relative indicator of broader institutional interpretations. Students responses from the survey instrument was analyzed using the Statistical Program for Social Sciences version 11.0 (SPSS).

Table 3

Number of Students from Different Schools who Participated in the Study

School	Frequency	Percent
Arts and Science	61	40.4
Education	19	12.6
Business	42	27.8
Social Work	29	19.2
Total	151	100.0

Population Setting

The population for this study comprised of 3,699 undergraduate students who are enrolled School of Arts and Science (2,464), School of Education (153), School of Business Administration (935), and School of Social Work (76) at Southeastern Historically Black University. Southeastern Historical Black University is classified as a Research University with High Research Activity (Carnegie Foundation for the

Advancement of Teaching, 2005). The Southeastern Black University was formed in 1988 by the amalgamation of Atlanta University and Clark College. The University is a private, and urban coeducational higher institution offering bachelors, masters, and doctoral degrees as well as professional certificates to students. Although the students at Southeastern Black University are predominantly African-American, there are also a sizable numbers of students from diverse ethnicity and origin who are enrolled at the institution. Southeastern Historical Black University shares a common geographical domain commonly referred to as the Atlanta University Center with Morehouse College, Spelman College, Interdenominational Theological Center, and Morehouse College of Medicine.

Data Collection and Administration

All data for this research were collected from four schools at CAU. The data collection points were School of Education, School of Arts and Science, School of Business Administration, and School of Social Work. The research approached several instructors to seek permission to administer surveys in their classes at different days for about six weeks during a regular semester. During the period of the survey, the instructor leaves the class to assure anonymity of the students. The researcher collects student responses individually into a manila folder and secures them to preserve the integrity of the survey. Student responses were as follows: 61 from School of Arts and Science, 42 from the School of Business Administration, 29 from the School of Social Work, and 19 from the School of Education. Upon completion of the data collection

period, the researcher load the student responses into a spreadsheet program which was later downloaded to SPSS for analysis.

Instrumentation

The instrument for this study was developed by Persaud, Turner and the researcher (2006) specifically for this research. This instrument utilized 66 statements designed to assess the degree which a certain student instigates and sustains attributes that results in degree completion (see Appendix A). The statements in instrument were group according to the variables in the study. Data collected during this study yielded high Cronbach's Alpha for this instrument. However, in case this instrument is considered for use in further research, it would be necessary to increase the number of statements concerning campus safety so as to raise the Cronbach's Alpha for this variable.

Reliability Summary

A Reliability test using SPSS 11.0 reliability procedure was performed on the instrument used in this study in order to validate the use of the survey instrument. The survey consists of seven components that represented the variables in this study which measured instructor teaching style, student learning styles, student self-efficacy, student support services, student motivation, financial aid, and campus safety. Similarly, each statement in the survey was further categorized into instructor teaching style (items 1 to 6), student learning style (items 7 to 15), student efficacy (items 16 to 21), student motivation (items 22 to 25), student support services (items 26 to 29), financial aid (items 30 to 31), campus safety (items 33 to 34), student gender (item 61), school

attending (item 62), percentage of courses completed (item 63), years in undergraduate program (item 64), student major (item 65), and student SAT (item 66). The response choices were assigned numerical values as follows: (5) strongly agree; (4) agree; (3) uncertain, (2) disagree, and (1) strongly disagree. The following questions on the survey are reversed questions: items 5, 13, 19, 20, 21, 22, 23, 24, 25, 32, 35, 37, and 38. These reversed order items were inverted to align with student responses for measuring purposes. The results of the reliability analysis indicate that each of the seven survey components are reliable and are constructed of similar measures (Table 4).

Table 4

Cronbach's Alpha Results

	N =	Cronbach's Alpha
Instructor Teaching Style	151	.6437
Student Learning Style	151	.6612
Student Self-Efficacy	151	.5740
Student Motivation	151	.7592
Student Support Services	151	.7417
Financial Aid	151	.6494
Campus Safety	151	.3091
Degree Completion	151	.7361

Statistical Methods

This study utilized a quantitative statistical methodology employing Pearson Correlation analysis, T-test, analysis of variance (ANOVA), and Pearson Factor analysis for the purpose of establishing relationships and difference between the dependent and independent variables. The Pearson Correlation analysis was used to establish the relationship between the dependent variable (degree completion) and independent variables: instructor teaching style, student learning styles, student self-efficacy, student support services, financial aid, student motivation, and campus safety. T-test was used to test the difference between the mean of student gender and degree completion. ANOVA was used to explain the variance in student degree completion based on student major and school attending. Furthermore, the Pearson factor analysis was used determine how elements which has similarities relative to degree completion are associated.

Limitations

The research design employed to answer a research question determines the limitations of the study. The results, conclusions, and implications of this study have many limitations. They are the following.

1. The sample used in this study was not randomly selected. Hence, generalization of the results, conclusions and implications of this study beyond those participants is limited to this population. Thus, this study merely attempts to demonstrate how researchers might approach the issue at their own institutions. The literature cautions us against making such

genralizations (Gillespie & Noble, 1992; Hossler, 1984; Kang, 1993; Tinto, 1993).

2. Some schools within CAU where data was collected such as the School of Education have a relatively fewer number of undergraduate students. Also, some instructors were unwilling to permit the survey to be completed in their classes. Therefore, collecting data under the circumstances proved quite difficult resulting in less response from the students.
3. Data were collected during a few weeks of a single semester.

Summary

The chapter enumerated the design of the study. As such, the sample, population setting, instrumentation, reliability of the instrument, data collection and administration, and statistical methods were presented. The design of this research was a correlation design. However, statistical methods involving T-test, ANOVA, Pearson factor analysis, and multiple regression analysis were also utilized.

CHAPTER V

ANALYSIS OF THE DATA

The focus of this study was to determine the factors that influence student degree completion. Accordingly, this study investigates whether student degree completion is influenced by the following factors: instructor teaching style, student learning style, student efficacy, student motivation, student support services, financial aid, campus safety, student gender, school attending, percentage of courses completed, years in undergraduate program, student major, and student SAT. Hence, this chapter analyzes data which are the responses of students from the School of Arts and Sciences, School of Business Administration, School of Education, and School of Social Work of Southeastern Historical Black University. Data were analyzed using The Statistical Program for Social Science (SPSS).

In order to analyze the impact on degree completion, a survey was administered to students. The survey data was analyzed in Research Questions 1 through 12. The survey items were grouped to represent, instructor teaching style (items 1 to 6), student learning style (items 7 to 15), student efficacy (items 16 to 21), student motivation (items 22 to 25), student support services (items 26 to 29), financial aid (items 30 to 31), campus safety (items 33 to 34), student gender (item 61), school attending (item 62), percentage of courses completed (item 63), years in undergraduate program (item 64), student major (item 65), and student SAT (item 66). The response choices were

assigned numerical values as follows: (5) strongly agree; (4) agree; (3) uncertain, (2) disagree, and (1) strongly disagree.

The demographic question choices were assigned numerical values based on the nominal or ordinal order in which they appeared on the survey. The following questions on the survey were coded in reverse: q5, q13, q19, q20, q21, q22, q23, q24, q25, q32, q35, q37, q38 (1=5) (2=4) (3=3) (4=2) (5=1). The following variables were treated as nominal variables: student gender, school student is attending, and student major. The following variables were treated as ranked ordinal variables: percentage of courses completed, years in undergraduate program, and student SAT. The independent variables: instructor teaching style, student learning style, student efficacy, student motivation, student support services, financial aid, and campus safety were treated as interval variables. The dependent variable degree completion was treated as an interval variable.

The Statistical Package for the Social Sciences (SPSS) Version 11.0 was used to analyze the data collected in this study. The following statistical procedures were used: Pearson Correlation, frequency, t-test, One-way analysis of variance (ANOVA), Factor Analysis, and Multiple Regression. The information presented in this chapter includes demographic information on the population sample and the results and analysis of the statistical tests applied to the research questions. All of the statistical procedures were tested at the (.05) significant level.

Furthermore, this chapter presented the statistical analysis of student responses and their perceptions as expressed in the survey instrument. The responses of 151

students from various schools and departments within Clark Atlanta University were analyzed. The following tables provide basic statistics regarding the manner in which the students who participated in the study responded to various questions on the survey instrument. The data show (see Table 5) that more students responded favorably in terms of whether they agree or strongly agree with the stated instrument questions about instructor teaching style (mean = 3.38), student learning style (mean = 3.91), student support services (mean = 3.53), and degree completion (mean = 3.67).

Table 5

Means of Interval Variables Descriptive Statistics

	Mode	Median	Mean	SD
Instructor Teaching Style	3.67	3.50	3.38	0.68
Student Learning Style	4.00	4.00	3.91	0.51
Student Efficacy	3.00	3.00	3.09	0.65
Student Motivation	2.00	2.50	2.70	0.94
Student Support Services	4.00	3.50	3.53	0.79
Financial Aid	3.00	2.50	2.63	1.12
Campus Safety	3.33	2.66	2.72	0.82
Degree Completion	5.00	3.75	3.67	0.97

Response Scale: (5) strongly agree; (4) agree; (3) uncertain, (2) disagree, and (1) strongly disagree.

Moreover, the data show that some students were uncertain or indifferent in their responses pertaining to how they perceive student efficacy (mean = 3.09). While many students tended to disagree or strongly disagree in their perceptions about some of the instrument questions regarding student motivation (mean = 2.7), financial aid (mean = 2.63), and campus safety (mean = 2.72).

Demographics

The sample population of 151 consisted of a majority of females (78.8%) and 21.2% male students (Table 6).

Table 6

Frequency of Student Gender

Gender	Frequency	Percent
Female	119	78.8
Male	32	21.2
Total	151	100.0

A majority of the students (61%) attend the School of Arts and Sciences (see Table 3 in Chapter IV). The number of courses completed by the sample population of students was 41.1% (Table 7).

Table 7

Frequency of the Percentage of Courses Completed by Students

Percentage of Courses Completed	Frequency	Percent
1-20%	53	35.1
21-40%	9	6.0
41-60%	24	15.9
61-80%	3	2.0
81-100%	62	41.1
Total	151	100.0

A majority of the students surveyed (61%) had completed three or more years as an undergraduate (Table 8).

Table 8

Frequency of the Years in Undergraduate School

Years in Undergraduate School	Frequency	Percent
1 year	45	29.8
2 years	14	9.3
3 years	34	22.5
4 years	41	27.2
5 or more years	17	11.3
Total	151	100.0

A majority of the students that participated in the study indicated that they were in the School of Arts and Sciences, albeit not as science or math majors (Table 9).

Table 9

Frequency of the Number of Students' Majors

Major	Frequency	Percent
Arts & Language	40	26.5
Business	40	26.5
Education	28	18.5
Political Science	4	2.6
Sociology & Social Work	31	20.5
Other	8	5.3
Total	151	100.0

A majority of students (79.5%) that participated in the survey scored between 801-1000 on the SAT (Table 10).

Table 10

Frequency of Students' SAT Scores

SAT Scores	Frequency	Percent
700-800	13	8.6
801-1000	120	79.5
1001 and above	18	11.9
Total	151	100.0

Research Questions

RQ1: Is there a significant relationship between instructor teaching style and degree completion?

The data in Table 11 indicate that there is no significant relationship between instructor teaching style and degree completion as the Pearson correlation coefficient is only .06 and not significant at the .05 probability level. The Pearson $r(151) = 0.06$, $p = 0.406$ which is greater than the accepted significance level of 0.05.

Table 11

Correlation of Degree Completion with Independent Variables

Independent Variables	Degree Completion
Instructor Teaching Style	.06
Student Learning Style	.09
Student Efficacy	.38*
Student Motivation	.28*
Student Support Services	.03
Financial Aid	-.12
Campus Safety	-.04
Percentage of courses completed	-.08
Years in undergraduate program	-.09
SAT	-.04

N = 151; * $p < 0.05$

RQ2: Is there a significant relationship between student learning styles and degree completion?

The data in Table 11 indicate that there is no significant relationship between student learning styles and degree completion as the Pearson correlation coefficient is only .09 and not significant at the .05 probability level. The Pearson $r(151) = 0.09$, $p = 0.241$ which is greater than the accepted significance level of 0.05.

RQ3: Is there a significant relationship between student efficacy and degree completion?

The data in Table 11 indicate that there is a significant relationship between student self-efficacy and degree completion as the Pearson correlation coefficient is .38 and significant at the .05 probability level. The Pearson $r(151) = .38$, $p = .000$ was calculated to be significant at $p = 0.000$ which is less than the accepted significance level of 0.05. Hence, as student efficacy increases, the degree completion rate rises.

RQ4: Is there is a significant relationship between student motivation and degree completion?

The data in Table 11 indicates that there is a significant relationship between student motivation and degree completion as the Pearson correlation coefficient is .28 and significant at the .05 probability level. The Pearson $r\ (151) = .28$, $p = .000$ was calculated to be significant at $p = 0.000$ which is less than the accepted significance level of 0.05. Hence, student motivation and degree completion rate have a direct relationship.

RQ5: Is there a significant relationship between student support services and degree completion?

The data in Table 11 indicate that there is no significant relationship between student support services and degree completion as the Pearson correlation coefficient is only .03 and not significant at the .05 probability level. The Pearson r (151) = .03, p =.690 was calculated to be significant at p = 0.690 which is greater than the accepted significance level of 0.05.

RQ6: Is there a significant relationship between financial aid and degree completion?

The data in Table 11 indicate that there is no significant relationship between financial aid and degree completion as the Pearson correlation coefficient is only -.12 and not significant at the .05 probability level. The Pearson r (151) = -.12, p = .125 was calculated to be significant at p = 0.125 which is greater than the accepted significance level of 0.05.

RQ7: Is there a significant relationship between campus safety and degree completion?

The data in Table 11 indicate that there is no significant relationship between campus safety and degree completion as the Pearson correlation coefficient is only -.04 and not significant at the .05 probability level. The Pearson r (151) = -.04, p = .612 was calculated to be significant at p = 0.612 which is greater than the accepted significance level of 0.05.

RQ8: Is there a significant relationship between student demographics: percentage of courses completed, years in undergraduate program, SAT and degree completion?

The data in Table 11 indicate that there is no significant relationship with percentage of courses completed, years in school, SAT and degree completion as the Pearson correlation coefficient is only -.08, -.09, and -.04 and not significant at the .05 probability level respectively for percentage of courses completed, years in undergraduate program, and SAT scores. Percentage of courses completed had a Pearson $r(151) = -.09$, $p = .361$ and was calculated to be significant at $p = 0.361$ which is greater than the accepted significance level of 0.05. The number years in undergraduate program student had a Pearson $r(151) = -.09$, $p = .238$ was calculated to be significant at $p = 0.238$ which is greater than the accepted significance level of 0.05. Students' SAT scores had a Pearson $r(151) = -.04$, $p = .629$ was calculated to be significant at $p = 0.629$ which is greater than the accepted significance level of 0.05.

RQ9: Is there a significant relationship between student demographics: gender and degree completion?

A T-test was used to determine if there is any difference between gender and degree completion. The data in Table 12 indicate that there is a significant difference between student gender and degree completion. The T-test yielded a mean difference $M_{A-B} = .53$ with a calculated ($t[55]= 3.02$, $p = .004$), since the calculated t value of 3.02 > critical t value of 1.67 and having a probability of 0.004, which is less than the

significance level of 0.05. The data reflects that there is a higher propensity for degree completion among females (Table 13).

Table 12

Independent Samples Test

		F	Sig.	t	df	Sig.
Degree Completion	Equal variances not assumed	2.09	.15	3.02	55.02	.00

N=151; *p < 0.05

Table 13

T-Test Degree Completion and Student Gender

	Gender	N	Mean	Std Dev.	Std. Error of Mean
Degree Completion	Female	119	3.78	.97	.08
	Male	32	3.25	.85	.15

Response Scale: (5) strongly agree; (4) agree; (3) uncertain; (2) disagree; and (1) strongly disagree.

Gender: Female = 1, Male = 2

RQ10: Is there a significant relationship between student demographics: school, major, and degree completion?

A one-way analysis of variance was performed to determine the difference between the schools a student attended, student major with degree completion. The

data in Tables 14 and 15 indicate that there is no significant difference between student major and degree completion. The analysis of variance yielded a calculated F value of ($F[5,150] = .94$, $p = .454$). The calculated F value of .94 < critical F value of 2.60 with a probability level of 0.454 is not significant at the probability level of 0.05.

Table 14

Student Major Average Degree Completion Description

Major	N	Mean	Std Dev.	SE
Arts & Language	40	3.73	0.92	.14
Business	40	3.60	0.99	.15
Education	28	3.41	0.98	.18
Political Science	4	3.50	0.57	.28
Sociology & Social Work	31	3.94	0.95	.17
Other	8	3.68	1.29	.45
Total	151	3.67	0.97	.07

Response Scale: (5) strongly agree; (4) agree; (3) uncertain; (2) disagree; and (1) strongly disagree.

Table 15

ANOVA Degree Completion with Student Major

	df	Mean Square	F	p
Between Groups	5	.78	.94	.45
Within Groups	145	.95		
Total	150	--	--	--

N=150; *p < 0.05

There is no significant difference between the school that a student attends and degree completion (Table 16). The data analysis yielded a calculated F value of ($F[3,150] = 1.10$, $p = .349$), since the calculated F value of 1.10 < critical F value of 2.60 and having a probability of 0.349 which is greater than the significance acceptance level of 0.05. Thus, there is no significant difference between school a student attends and degree completion (Table 17).

Table 16

School Average Degree Completion Description

	N	Mean	Std Dev.	SE
Arts and Science	61	3.70	0.93	.11
Education	19	3.47	1.12	.25
Business	42	3.55	0.98	.15
Social Work	29	3.92	0.94	.17
Total	151	3.67	0.97	.07

Response Scale: (5) strongly agree; (4) agree; (3) uncertain; (2) disagree; and (1) strongly disagree

Table 17

ANOVA Degree Completion with School Attending

	df	Mean Square	F	Sig.
Between Groups	3	1.04	1.10	.34
Within Groups	147	0.95		
Total	150			

N=150; *p < 0.05

RQ11: In what Factor would student self-efficacy, student motivation and degree completion be placed?

The data in Table 18 indicate that student self-efficacy, student motivation and degree completion are placed in Factor 3. The factor analysis design assumed that all variables are independent unlike the regression analysis which has a defined dependent variable.

Table 18

Factor Analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Percentage of courses completed	.91	.07	-.03	.03	.04
Years in graduate school	.82	.02	-.11	.17	.10
School Attending	.76	-.12	.04	.08	-.19
Student Learning Style	-.08	.76	-.08	.02	-.21
Instructor Teaching Style	.14	.73	.15	-.00	.05
Student Support Services	-.33	.48	-.05	.41	-.04
Student Efficacy	-.12	.15	.74	-.06	-.09
Student Motivation	.12	-.22	.73	.13	.11
Degree Completion	-.05	.10	.68	-.08	-.20
Campus Safety	.03	-.01	.01	.85	-.02
Financial Aid	.15	.06	-.03	.81	.05
Gender	.08	-.34	-.10	-.04	.61
SAT	.07	.49	.07	-.01	.59
Major	.35	.04	.24	-.09	-.54

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 9 iterations. Degree Completion variance 13%

Factor 1: The results indicate that the percentage of courses completed, years in undergraduate school, and school attending are loaded in factor one.

Factor 2: The results indicate that student learning style, instructor teaching style, and student support services are loaded in factor two.

Factor 3: The results indicate that student efficacy, student motivation, and degree completion, are loaded in factor three.

Factor 4: The results indicate that campus safety and financial aid are loaded in factor four.

Factor 5: The results indicate that student gender, student SAT, and inversely student major are loaded in factor five.

Overall, the results indicate a stronger bonding among degree completion, student efficacy and student motivation had similar variance and accounted for 12.11% of all variance relative to all of variables used in this study.

RQ12: In a multiple regression analysis of the data, what would be the independent variables that would explain the dependent degree completion?

In a multiple regression degree completion analysis (Table 19), the independent variables in the equation were: instructor teaching style, student learning style, student efficacy, student motivation, student support services, financial aid, campus safety, student gender, school attending, percentage of courses completed, years in undergraduate program, student major, and student SAT.

Table 19

Result of Multiple Regression Analysis: Degree Completion as Dependent Variable

Model		Standardized Coefficients			
		Std. Error	Beta	T	Sig.
3	(Constant)	.43		5.16	.00
	Student Efficacy	.11	.30	3.92	.00
	Student Motivation	.07	.20	2.64	.00
	Gender	.17	-.19	-2.58	.01

Dependent Variable: Degree Completion; R^2=.21; F(3,150)=13.376; N=151

Gender: Female = 1, Male = 2

The data in Table 19 indicate that student self-efficacy; student motivation and student gender explained the variations of the degree completion. The results of the regression analysis indicate that student efficacy (beta = 0.30, p = 0.000), student motivation (beta = 0.207, p = 0.000) and student gender (Beta = -0.19, p = 0.010) explained degree completion significantly (at 0.05 level). Student gender had an inverse significant relationship with degree completion as indicated by the negative beta coefficients which indicates that females were more likely to complete degree program. The adjusted R Square of 0.20 indicated that approximately 20% of the variance on degree completion is explained by the three variables. Subsequently, 80% of the variance therefore, explained by variables not included in this study. The calculated F value was (F(3,150) = 13.376, p=.000). The calculated F value of 13.76 with the

critical F value of 2.60 having a probability of 0.000 is less than the significant acceptance level of 0.05. Hence, student self-efficacy, student motivation and student gender contribute significantly to the variance in degree completion. The other independent variables instructor teaching style, student learning style, student support services, financial aid, campus safety, school attending, percentage of courses completed, years in undergraduate program, student major, and student SAT are excluded from the model signifying that they did not explain the variation in degree completion.

Summary of Findings

The findings in this research were organized around the research questions of the study.

1. Results indicate that there is no significant relationship with instructor teaching style and degree completion.
2. Results indicate that there is no significant relationship with student learning styles and degree completion.
3. Results indicate that there is significant relationship with student efficacy and degree completion. The higher the student efficacy the higher the degree completion.
4. Results indicate that there is significant relationship with student motivation and degree completion. Students with higher motivation exhibited a higher propensity for degree completion.

5. Results indicate that there is no significant relationship with student support services and degree completion.
6. Results indicate that there is no significant relationship with financial aid and degree completion.
7. Results indicate that there is no significant relationship with campus safety and degree completion.
8. Results indicate that there is no significant relationship with percentage of courses completed, years in school, SAT and degree completion
9. Results indicate that there is a significant difference with student gender and degree completion. The data indicate that there is higher degree completion among females.
10. Results indicate that there is no significant difference between school a student attends, student major and degree completion
11. Results indicate that student efficacy, student motivation and student gender explain the variations in the degree completion. Hence, given the data analysis, one can predict with some significance that students who have high student efficacy, high student motivation, and are female have higher probability than males with similar characteristics to complete their degree program.

CHAPTER VI

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the influence of instructors teaching style, student learning styles, student efficacy, student motivation, student support services, financial aid, campus safety, and student demographics on undergraduate degree completion. The dependent variable for this study was degree completion. While the independent variables were instructors teaching style, student learning styles, student efficacy, student motivation, student support services, financial aid, campus safety, and student demographics.

Student persistence has been of great significance to college and university researchers over the past 30 years. The consequence of student attrition from our colleges and universities are enormous for the individual student and the institution alike. Pike, Schroeder, and Berry (1997) circumscribed the importance of persistence and states, "If students do not persist, opportunities for learning and development are foreclosed, graduation is impossible, and success in later life is diminished" (p. 60). Universities and colleges have become keenly aware of the economic impact of attrition on their campuses. Albeit the enrollment of non-traditional students have diminished the effect of the dwindling pool of high school seniors during the past two decades, many institutions have experienced a decline in enrollment and have made student retention a priority.

The Southeastern Historically Black University is not immune from the consequences of low persistence. In fact, poor student retention rate tend to have a phenomenal impact on HBCU institutions including the Southeastern Historically Black University because of the narrow pool of student that they have to choose from. Also, most HBCU experience limited sources of revenue and low endowment unlike other universities with wide ranging support. Hence, it is imperative for Southeastern Black University to experience years of high recruitment and retention in order to raise revenue from student tuition and other fees. Thus, the need for empirical research to assess the factors that will raise student persistence and enhance degree completion is critical.

The overview of persistence and degree completion research provided in the literature review also supported the need for the proposed study. Despite the abundant array of literature on the topic and numerous intervention measures on college campuses, undergraduate students persistence rate have remained quite modest over the last few decades. Acquiring an understanding of the retention of undergraduate students is difficult due to the complex mixture of factors involved.

Some of the factors that received attention are the relationship of instructors teaching style, students learning styles, student efficacy, student motivation, student support services, financial aid, campus safety, and student demographics on degree completion. The literature review highlighted the difficulties of inquiry into these relationships. Researchers differ on the impact of all the factors mentioned on degree completion and persistence. Results are mixed and often contradictory. This can be

attributable to the differences within colleges and universities and paucity of consistent research design. Much of the research in this area is dated and does not consider the diversity that is prevalent in higher educational institutions. The type of students that the institution is able to attract and the programs that are available to enhance the student efficacy and motivation changes with the passages of each year that makes the need for updated research pertinent.

Far too many institutions have stumbled because they base their policies regarding demographics, financial aid, students need for motivation and efficacy just to mention a few, on intuition and have little evidence of the impact of their policies. There is a need for a commitment to ongoing research regarding the relationship between instructors teaching style, student learning style, student efficacy, student motivation, student support services, financial aid, campus safety and student demographics on student persistence and degree completion so that the Southeastern Historically Black University might make optimal decisions regarding it operations with interest of the customer-the student-as a necessary priority.

The intent of this study is to inform the Southeastern Historically Black University administrators and instructors in order that policies may be developed which will enhance undergraduate student persistence and degree completion. This does not mean that the study does not have any usefulness for administrators and instructors from other institutions. The study emphasizes the importance of research investigating the relationship between instructors teaching style, student learning styles, student motivation, student efficacy, student support services, financial aid, campus safety and

student demographics, with degree completion and will form a model for how that research might be conducted at other institutions.

Chapter III outlined proposed theoretical framework employed in the study, definition of variables including dependent and independent variables. The independent variables in this study were instructor teaching style, student learning styles, student efficacy, student motivation, student support services, financial aid, campus safety, and student demographics. The dependent variable was degree completion.

Chapter IV presented the research design. As such, the population setting, sample, instrumentation, data collection and instrument administration, and instrument reliability, and limitations were presented. The design of this study was identified as a correlation study that analyses data from students obtained through questionnaire. A focus group was also instituted to develop additional variables for the study. The sample used in this study consisted of undergraduate students who are enrolled in the School of Education, School of Arts and Science, School of Social Work and School of Business Administration.

Chapter V presented the data analysis and findings of this study. The results address the research questions of this study. The chapter established the degree of relationship between the dependent degree completion and independent variables: Instructor teaching style, student learning styles, student efficacy, student motivation, student support services, financial aid, campus safety, and student demographics. Further, this chapter determines which independent variable could explain the variation in the dependent variable.

Discussion and Conclusions

Conclusion: There is a significant relationship between student self-efficacy and degree completion.

The findings of the current study are consistent with the researches that reported that self-efficacy is related to effort and ultimately achievement (Schunk, 2000). Therefore, it was expected that Southeastern Historically Black University students with higher self-efficacy would achieve at a higher level and invariably have more favorable attitudes toward their academic work which will result in degree completion. This theory was consistent with the finding of previous research (Laughlin, 1998, Lim, 2001; Riddle, 1994).

As the result shows, students who perform well in the class and have confidence in their abilities owing to high self-efficacy are more likely to persist in their academic work. Thus, it makes sense to surmise that the higher the student efficacy the higher the penchant to complete their degree and graduate. Also, it is reasonable to assume that students' belief about their potential for success influences success (Bandura, 1986).

Conclusion: There is a significant relationship between student motivation and degree completion.

The theories of motivation postulate that higher motivation can produce greater achievement (Schunk, 2000). Consequently, higher achievement would be expected of Southeastern Historically Black University students that set goals and perpetuate behaviors designed to meet those goals. The findings of this study are consistent with prior researches. For example, Oxford et al. (1993) reported that motivation affected

performance in a foreign language course delivered by distance education. Hence, students with higher levels of motivation tend to exhibit higher achievement and more favorable attitudes toward the instructional strategy

Conclusion: There is no significant relationship between instructor teaching style and degree completion.

The impetus for the relationship between achievement and attitudes toward the instructional strategy has been established and is supported by the findings of this study. In fact, Southeastern Historically Black University students need to develop their capability for independent study. Spoon and Schell (1998) theorized that there need not be congruence between instructors teaching style. Specifically, collaborative teaching is not a necessary learning mode for adults.

Besides, if we consider a distance-learning environment, one realizes that the separation of the students from the instructor dictates that the students take more responsibility for their learning. Therefore, instructors teaching style need not determine students' degree completion.

Conclusion: There is no significant relationship between student learning styles and degree completion.

The findings of the current study are consistent with previous researches that reported that learning styles do not have a significant influence on student academic achievement (Riddle, 1994). Many students, especially students that have been academically successful, are proficient at learning in many different ways (Gregorc, 1982a). Although most Southeastern Historically Black University students have

preferred learning styles, they may become accustomed to learning in ways that are inconsistent with their preferred learning styles.

Also, Freeman (1995) in a study that compared face-to-face classroom and interactive video-conferencing delivery method and learning style, reported a statistically a significant relationship between learning style and student achievement in only one of eight topics with learning style as an independent variable.

Conclusion: There is no significant relationship between student support services and degree completion.

The findings of the current study that the services provided by Southeastern Historically Black University to its student does not necessarily determine degree completion is consistent with previous researches. Studies revealed that universities and colleges who provide certain important services to their students experience less student attrition only if the students are committed to utilizing the services which have been provided to improve achievement in their academic endeavors (Tinto, 2002). This position supports the findings in this research that there is no statistically significant relationship between student support services and student degree completion. Ultimately, there remains a duty placed upon the students to engage themselves in the academic process. Rendell (1980) studied the effects of three freshman orientation programs that included student study skills. No significant difference in study habits and attitudes between targeted and non-targeted students was found. This finding agrees with the current research result.

Conclusion: There is no significant relationship between financial aid and degree completion.

The findings of this study support the premise that researches in financial aid tend to paint a blurry picture of the degree of importance of financial aid to student persistence. For instance, Powell (2002) surmised that students with lower expected family income and higher unmet need were less likely to persist. So, financial aid alone is not adequate to overcome the effect of low family income. Although persistence may be enhanced by large amount of financial aid (Leslie & Brinkman, 1998), grant and scholarship aid have a more positive effect on persistence than do loan.

However, owing to the government penchant to reduce student education grants in favor of large loans, students' financial aid portfolios tend to comprise almost exclusively of loans. The probable effect is that scarce dollars have traveled up the income ladder, at the expense of more disadvantaged students and families. Consequently, institutions began to "hedge" financial aid. Institutional financial aid was no longer primarily aimed at meeting student need, but aimed at other institutional priorities. The more lazy and inept administrators become about carrying out their prescribed duties, the more they award institutional aid to those who do not need them.

Also, when available institutional aid is directed to academically stronger students, it is misused if the goal is to improve the likelihood that all students will graduate. Therefore, the writer concludes that there is no significant relationship between financial aid and degree completion.

Conclusion: There is no significant relationship between campus security and degree completion.

The findings of the current study support the research which asserts that for female students, college campuses tend to be chillier than for males (Janz & Pyke (2000). The situation does not fare any better on black college campuses such as the Southeastern Historically Black University where female students routinely complain of dormitory invasion, assault and other forms of victimization. It is worth noting that the increase in crime against female student reflects a general black college campus trend (JBHE). However, the upsurge in campus crimes notwithstanding, female student enrollment on college and university campuses continues to rise. This reality supports the research finding that there is no significant relationship between campus safety and student degree completion.

Conclusion: There is no significant relationship between student SAT score and degree completion.

Studies show that student who step into an educational environment with greater knowledge of the content will achieve at a higher level at the conclusion of instruction (Pascarela & Terenzini, 1991). The assertion supports the current research conclusion that SAT score alone does not have a statistically significant relationship with degree completion for students of Southeastern Historically Black University. After all, SAT and similar tests only look at a narrow piece of the broad spectrum of human capabilities. Of course, we recognize that fundamental abilities that are expressed

through mathematics and verbal skills are important. But intelligences manifest themselves in many other ways.

Conclusion: There is a significant relationship between student gender and degree completion.

The findings of the current study that African-American female students are more likely to complete their degrees than males their male counterpart supports previous research that gender is a significant determinant of student achievement. Rucker (2003) conducted a research which revealed African-American female students persisted even when differing course speed, course type and course length were offered is consistent with the findings of the current study.

Implications

This study provided evidences that there exist a significant relationship between student self-efficacy; student motivation; and student gender and degree completion. However, there was no significant relationship between instructor teaching style; student support services; financial aid; SAT; student learning styles; and campus safety and degree completion.

The researcher commissioned a 15 member focus group which comprised 11 freshman students. Most students in the focus group complained of lack of respect and appreciation in the manner in which they are treated by the staff of the university especially, the financial aid office staff. The consequence of shoddy treatment of students is the possibility of negative self-efficacy and motivation. The implication is that male students who lag behind their female counterpart in degree completion at the

Southeastern Historically Black University may face physical, emotional, or intellectual challenges such that their higher self-efficacy could spiral down to learned helplessness and attrition. Thus, the level of arousal affects student self-efficacy depending on how the arousal is interpreted. If students are anxious or worried as they face a task lower self-efficacy may ensue. However, if the students are excited about facing a task then high self-efficacy will arise (Bandura, 1997; Pintrich & Schunk, 2002).

Also, the instructor should treat students with respect and appreciation in the classroom. This is an important issue especially, considering the fact that each student enters the classroom with some life experiences that they value. Therefore, acknowledging the students' prior experiences is tantamount to accepting them. The implication of male students of the Historically Black University being accepted by the instructor is that the students develop a sense of belongingness which is a key factor in Edwin Maslow's (1970) Hierarchy of needs.

Another finding of this study is that students with higher levels of motivation tend to exhibit higher achievement and more favorable attitudes toward the instructional strategy. The implication is that instructors' assignment of good grades may act as a motivator for improving student future classroom performance. When asked about the most important thing they expected to get out of a class, students overwhelmingly responded "good grades" rather than personal enrichment or new information (Gaultney & Cann, 2001, p. 84).

Moreover, the Southeastern Historically Black University student who does not earn a higher grade in any given course may be discouraged and so, may not be willing

to make the sacrifice and effort required to complete the course. Hence, considering the result of this research which indicates that male students are less likely to complete their degree than female students, the implication is that male students' motivation may be affected negatively by poor grades. This condition could be explained by the expectancy motivational theory enunciated by Victor Vroom. According to Vroom (1976), felt needs trigger behavior, and this motivated behavior is increased if a person perceives a positive relationship between effort and performance.

Recommendations

Recommendations for Instructors

Based on the findings of this study, and the discussion and implications above, the following recommendations were made for instructors:

1. Students have varying learning styles that tend to influence their approaches towards classroom achievements, instructors should continue to use different instructional strategies that take the student learning style into consideration.
2. High motivation relates to an increase in student achievement and positive attitudes towards classroom work, higher motivated students tend to graduate at a higher rate. If a broad audience of varied levels of motivation is found, the instructor should implement strategies within the course to develop high motivation or consider other learning activities. Instituting a collaborative learning activity in the classroom where male students work together with female students for instance, may have a positive implication

for male students as they could work together to proffer solution to academic problems thereby enhancing the male students' sense of efficacy which would ultimately, affect student motivation to perform at higher level.

3. The University offers tutorial services through the Center of Academic Achievement, a Title III program. But surprisingly, the proportion of students who take advantage of this program remains very low. Thus, the instructors should make attending tutorial sessions an important requirement of their classes. Hence, students who attend regular tutorial sessions at the center may receive bonus point which would count towards their final course grade.

Recommendations for Department Heads

Based on the findings of this study, and the implications discussed above, the following recommendations for department heads were made:

1. The goal of each department should include providing the opportunity necessary for the each student's acquisition and application of knowledge. Every department should identify one required course to be designated it writing-intensive course. Students may take either this course or a specific writing-intensive course within the general education program, to fulfill graduation requirement.
2. Similarly, every department should identify one required course to be designated it speaking-intensive course. At a minimum, students may either

take this course, or a specific speaking-intensive course within the general education program, to fulfill graduation requirement.

3. Create a "Professional Development Day" to focus on workshops for faculty. Workshops could be department-specific or could circumscribe institution-wide teaching/learning issues. It is important to realize that creating on-campus opportunities for professional development could partially address the lack of "faculty learning opportunities" which is at the moment being experienced due to budget constraints.
4. Create a "faculty/student Showcase Day" during which faculty, students, and staff present, discuss, and share projects or research.

Recommendation for Deans

Based on the findings of this study, and the implications discussed above, the following recommendations for the deans were made:

1. Provide experiences in departments and programs using developmental model. For example, students could begin field experiences (field trips, job shadowing, etc.) in early courses to introduce the students to given disciplines. Then, once they declare a major, they could pursue a practicum experience in their field of choice.
2. Implement different programs that are simultaneously offered in departments. For example students unable to complete an internship or a co-p experience may be better able to fit a practicum in their courses of study. Students in the humanities or arts may be uninterested in pursuing a

co-op experience but interested in being part of a time-limited guest artist experience with a visiting performer. Students in the natural sciences could be introduced to field research through service-learning project incorporated in a required course, but may not be able to pursue a stand-alone field research course due to schedule constraints. Students not able to participate, financial reasons, in an unpaid internship may be better able to participate in a paid co-op experience.

Recommendation for University Policy

Based upon the findings of this research, and the implications discussed earlier, the following recommendations for university policy were made:

1. The success of institutional strategies to increase the persistence of students depends to a greater extent, on the involvement of the financial aid professionals in institutional planning, budget-making, and decision making processes.

   Financial aid administrators must jettison their reputation of insensitivity towards the plight of the student and begin to see themselves as the guarantors of student satisfaction. Invariably, every student of the Southeastern Historically Black University must have dealt with the financial aid office. Thus, the manner in which the student financial aid concerns are addressed could potentially influence motivation.

2. Instructors at the Southeastern Historically Black University must be given the resources necessary to engage in continuous learning in order to increase their collective efficacy.
3. The University should provide active and consistent leadership to promote understanding of various cultures, races, ethnicities, classes, genders, and global issues.
4. The University should intensify its efforts to recruit and advance faculty and staff from a variety of backgrounds and to provide student access to people of differing identities and genders.
5. The University should provide-and encourage participation in-regular, periodically renewed training to promote understanding of national, cultural, racial, and gender difference for the benefit of all staff.
6. Provide at least two semesters of prerequisite skill education for students who need to upgrade their academics skills, time management skills, and behavior modifications.

Recommendations for Further Research

Based on the findings of this study, and the implications discussed earlier, the following recommendations for further research were made:

1. This study was limited in that it investigated undergraduate persistence only. A longitudinal study tracking freshman cohorts for four to ten or more semesters would be important and useful. It is important to track freshman first year students to graduation.

2. The sample in this study was purposively selected. This study should be replicated using variables that allow for a high degree of randomization and invariably more generalization.
3. This study should be replicated at other HBCU institutions. Also, an attempt should be made to find out how selected HBCU compare to one another considering certain variables that are common to the institutions. In order for this type of research to be useful and accurate, each institution must undertake its own research about how different students respond to the university environment and how to motivate them to succeed. Certain policies about student affairs are institution specific. Research done at the institutional level has a great advantage over national research because data cannot be collected quickly enough at the national level to promote certain planning processes. Institutional research can provide a vital missing link for many black colleges in the planning process assisting them in becoming more competitive and provide better services for their students.
4. A follow up study is required to take the perceptions of faculty, students and administrators into consideration. This would lead to the necessary dialogue that could engender the development of a comprehensive policy that would improve upon the conditions for students and other stakeholders around the Comprehensive Southeastern Black University campus.

5. A qualitative study should be conducted in order to examine the underlying variables for motivation, and self-efficacy that the quantitative study could not cover.

APPENDIX A

Undergraduate Student Opinion Survey

Please provide your responses as follows:

SD = Strongly Disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly Agree

To what extent, do you *disagree* or *agree* with each item?		SD	D	U	A	SA
A. Instructors						
1.	Vary the lecture to match the different students' experiences					
2.	Show the concepts operationally through activities, or projects					
3.	Provide group assignments for collaborative learning					
4.	Develop the concepts visually through diagrams, charts, overheads or power-point					
5.	Explain the concepts more by using the textbook structure than by everyday situations					
6.	Facilitate class presentations for feedback purposes					
B. I would say that I learn best:						
7.	When the physical environment is pleasant and accommodating					
8.	When the knowledge being taught is explained at my learning level					
9.	When the concept is operationally demonstrated through using my experience or knowledge					
10.	When I practice the concept operationally in an activity or project work					
11.	When I work in doing group assignments					
12.	Visually through diagrams, charts, overheads or power-point					
13.	When the concepts are explained by using the textbook language					
14.	When I do class presentations for feedback purposes					
15.	When I get feedback to know what to do for improvement					

Appendix A (continued)

To what extent, do you *disagree* or *agree* with each item?		SD	D	U	A	SA
C. Generally, I believe:						
16.	Academically, I am in the top 5 percent of the class					
17.	I do equally as well as others on class assignments					
18.	I do better than others on assignments					
19.	I had some luck in passing a few courses					
20.	I needed some academic help from friends at times					
21.	I had to take "incompletes" or in some case(s) withdraw from course(s)					
D. Regarding my studies:						
22.	I find it difficult to concentrate on my studies with all the things happening around me					
23.	Some instructors make studying difficult					
24.	Frequent problems prevented me from attending regularly					
25.	Most times I feel too tired to study as I should					
E. Generally, on the occasion(s) I needed it, or from my observations of those utilizing the services, I feel the:						
26.	Technological resources are adequately provided for students' use					
27.	Library resources and reading materials are adequately provided					
28.	The help the Learning Resource Center provides can improve a student's grade					
29.	The Learning Resource Center helped students to catch up with class-work					
H. Generally,						
30.	Financial supports are adequately provided by the university, if needed					
31.	I have adequate funding for completing my program					
32.	I have to work to earn enough funds to get through each semester.					
33.	I feel secure on campus					
34.	The campus is a restful, peaceful environment for learning					
I. About my graduation, I feel:						
35.	I might have to delay my graduation considering my other needs					
36.	I might graduate on time or earlier than expected					
37.	I might have to take extra time to graduate because of unexpected factors					
38.	I might not be able to study long enough to graduate on time					

Appendix A (continued)

To what extent, do you *disagree* or *agree* with each item?		SD	D	U	A	SA
J. Generally, on the occasion(s) I needed it, or from my observations of others utilizing it, I feel the:						
39.	Faculty members take time to explain concepts in their offices					
40.	Administrative and secretarial staff have the knowledge and skills to be helpful					
41.	There is an effective counseling support, if I needed it					
42.	Students using the counseling services find it effective					
K. Generally, most instructors						
43.	Provide multiple-choice tests to assess my performance					
44.	Provide case studies to assess my performance					
45.	Provide written essay examinations to assess my performance					
46.	Provide term papers, projects or portfolios to assess performance					
47.	Utilize the results of group work to measure performance on team work					
48.	Re-teach concepts in a different way when students have problems understanding or doing assignments					
49.	Relate knowledge to one prescribed textbook rather than several other textbooks					
50.	Provide Handouts that demonstrate the content in different but simpler forms than the texts					
51.	Provide assignments that required students to utilize the inter-net					
52.	Use technology appropriately in presenting the subject matter					
53.	Teach courses in a way that all students can earn A grades					
54.	Provide their own written handouts for enhancing students' learning					
55.	Relate papers they have written in a relevant manner to the actual subject being taught					
56.	Ask questions for students to recall basic information					
57.	Ask questions for students to show the causes of a problem and how to resolve the problem based on the causes					
58.	Ask questions for students to create or construct solutions to solve real problems					
59.	Accept students answers to show how everyday ideas can be used to build knowledge					
60.	Utilize students' answers to show how to make effective judgments about conflicting issues or concepts					

Appendix A (continued)

Demographic Data

61. *Check your gender*: Female ____ Male ____

62. *Check your School*: Arts & Science ____ Education ____
Business ____ Social Work ____

63. *Check the percent of courses you have completed in your program:*

(a) 1-20% ____ (b) 21-40% ____ (c) 41-60% ____
(d) 61-80 ____ (e) 81-100 ____

64. Check number of academic years in under-graduate program:

1___; 2.____; 3.____; 4.____; 5____; 6 or more_____

65. *Check your major area*:
Arts & Language _____
Business _____
Education _____
Political Science _____
Sociology & Social Work _____
Math & Science _____
Other _____

66. Think about your SAT score: Please check if it were:

1. 700-800 _____
2. 801-1000 _____
3. 1001 and above _____

APPENDIX B

Focus Group Interview Questions

Focus Group interviews were designed to help in further identifying variables for the study. Participation in the focus group was based on student status and school. The following questions were asked of participants:

1. How do you feel about CAU?
2. What factors do you identify as assisting in your degree completion?
3. What part does motivation play in your academic achievement at CAU?
4. How sure are about completing a degree at CAU?
5. Do you find the administrative departments at CAU to be always supportive and ready to assist you?
6. Do you feel that CAU is in a position to support you financially in time of need?
7. Will you complete your degree by 2008?
8. What safety concerns do you have while you are around CAU campus?
9. In what school are you enrolled?

APPENDIX C

Frequency Tables

Recode q1 to q60 (5=3) (4=3) (3=2) (2=1) (1=1).

Q1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	46	30.5	30.5	30.5
	2	29	19.2	19.2	49.7
	3	76	50.3	50.3	100.0
	Total	151	100.0	100.0	

Q2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	17.2	17.2	17.2
	2	20	13.2	13.2	30.5
	3	105	69.5	69.5	100.0
	Total	151	100.0	100.0	

Q3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	31	20.5	20.5	20.5
	2	21	13.9	13.9	34.4
	3	99	65.6	65.6	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	28	18.5	18.5	18.5
	2	11	7.3	7.3	25.8
	3	112	74.2	74.2	100.0
	Total	151	100.0	100.0	

Q5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	93	61.6	61.6	61.6
	2	25	16.6	16.6	78.1
	3	33	21.9	21.9	100.0
	Total	151	100.0	100.0	

Q6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	16.6	16.6	16.6
	2	33	21.9	21.9	38.4
	3	93	61.6	61.6	100.0
	Total	151	100.0	100.0	

Q7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	3.3	3.3	3.3
	2	8	5.3	5.3	8.6
	3	138	91.4	91.4	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	3.3	3.3	3.3
	2	11	7.3	7.3	10.6
	3	135	89.4	89.4	100.0
	Total	151	100.0	100.0	

Q9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	8	5.3	5.3	5.3
	2	12	7.9	7.9	13.2
	3	131	86.8	86.8	100.0
	Total	151	100.0	100.0	

Q10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	5	3.3	3.3	3.3
	2	10	6.6	6.6	9.9
	3	136	90.1	90.1	100.0
	Total	151	100.0	100.0	

Q11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	54	35.8	35.8	35.8
	2	18	11.9	11.9	47.7
	3	79	52.3	52.3	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	9.9	9.9	9.9
	2	26	17.2	17.2	27.2
	3	110	72.8	72.8	100.0
	Total	151	100.0	100.0	

Q13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	64	42.4	42.4	42.4
	2	28	18.5	18.5	60.9
	3	59	39.1	39.1	100.0
	Total	151	100.0	100.0	

Q14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	13.2	13.2	13.2
	2	28	18.5	18.5	31.8
	3	103	68.2	68.2	100.0
	Total	151	100.0	100.0	

Q15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	4.0	4.0	4.0
	2	11	7.3	7.3	11.3
	3	134	88.7	88.7	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	59	39.1	39.1	39.1
	2	39	25.8	25.8	64.9
	3	53	35.1	35.1	100.0
	Total	151	100.0	100.0	

Q17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	9.9	9.9	9.9
	2	27	17.9	17.9	27.8
	3	109	72.2	72.2	100.0
	Total	151	100.0	100.0	

Q18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	14.6	14.6	14.6
	2	43	28.5	28.5	43.0
	3	86	57.0	57.0	100.0
	Total	151	100.0	100.0	

Q19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	97	64.2	64.2	64.2
	2	15	9.9	9.9	74.2
	3	39	25.8	25.8	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	116	76.8	76.8	76.8
	2	11	7.3	7.3	84.1
	3	24	15.9	15.9	100.0
	Total	151	100.0	100.0	

Q21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	65	43.0	43.0	43.0
	2	13	8.6	8.6	51.7
	3	73	48.3	48.3	100.0
	Total	151	100.0	100.0	

Q22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	80	53.0	53.0	53.0
	2	17	11.3	11.3	64.2
	3	54	35.8	35.8	100.0
	Total	151	100.0	100.0	

Q23

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	103	68.2	68.2	68.2
	2	11	7.3	7.3	75.5
	3	37	24.5	24.5	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	57	37.7	37.7	37.7
	2	20	13.2	13.2	51.0
	3	74	49.0	49.0	100.0
	Total	151	100.0	100.0	

Q25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	101	66.9	66.9	66.9
	2	14	9.3	9.3	76.2
	3	36	23.8	23.8	100.0
	Total	151	100.0	100.0	

Q26

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	36	23.8	23.8	23.8
	2	23	15.2	15.2	39.1
	3	92	60.9	60.9	100.0
	Total	151	100.0	100.0	

Q27

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	17.2	17.2	17.2
	2	21	13.9	13.9	31.1
	3	104	68.9	68.9	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q28

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	17	11.3	11.3	11.3
	2	43	28.5	28.5	39.7
	3	91	60.3	60.3	100.0
	Total	151	100.0	100.0	

Q29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	13.2	13.2	13.2
	2	63	41.7	41.7	55.0
	3	68	45.0	45.0	100.0
	Total	151	100.0	100.0	

Q30

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	90	59.6	59.6	59.6
	2	28	18.5	18.5	78.1
	3	33	21.9	21.9	100.0
	Total	151	100.0	100.0	

Q31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	60	39.7	39.7	39.7
	2	26	17.2	17.2	57.0
	3	65	43.0	43.0	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	87	57.6	57.6	57.6
	2	18	11.9	11.9	69.5
	3	46	30.5	30.5	100.0
	Total	151	100.0	100.0	

Q33

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	60	39.7	39.7	39.7
	2	33	21.9	21.9	61.6
	3	58	38.4	38.4	100.0
	Total	151	100.0	100.0	

Q34

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	71	47.0	47.0	47.0
	2	37	24.5	24.5	71.5
	3	43	28.5	28.5	100.0
	Total	151	100.0	100.0	

Q35

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	31	20.5	20.5	20.5
	2	17	11.3	11.3	31.8
	3	103	68.2	68.2	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q36

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	35	23.2	23.2	23.2
	2	18	11.9	11.9	35.1
	3	98	64.9	64.9	100.0
	Total	151	100.0	100.0	

Q37

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	44	29.1	29.1	29.1
	2	30	19.9	19.9	49.0
	3	77	51.0	51.0	100.0
	Total	151	100.0	100.0	

Q38

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	16.6	16.6	16.6
	2	26	17.2	17.2	33.8
	3	100	66.2	66.2	100.0
	Total	151	100.0	100.0	

Q39

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	35	23.2	23.2	23.2
	2	35	23.2	23.2	46.4
	3	81	53.6	53.6	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q40

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	48	31.8	31.8	31.8
	2	28	18.5	18.5	50.3
	3	75	49.7	49.7	100.0
	Total	151	100.0	100.0	

Q41

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	34	22.5	22.5	22.5
	2	45	29.8	29.8	52.3
	3	72	47.7	47.7	100.0
	Total	151	100.0	100.0	

Q42

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	10.6	10.6	10.6
	2	85	56.3	56.3	66.9
	3	50	33.1	33.1	100.0
	Total	151	100.0	100.0	

Q43

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	17.2	17.2	17.2
	2	18	11.9	11.9	29.1
	3	107	70.9	70.9	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q44

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	35	23.2	23.2	23.2
	2	34	22.5	22.5	45.7
	3	82	54.3	54.3	100.0
	Total	151	100.0	100.0	

Q45

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	30	19.9	19.9	19.9
	2	16	10.6	10.6	30.5
	3	105	69.5	69.5	100.0
	Total	151	100.0	100.0	

Q46

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	15.2	15.2	15.2
	2	17	11.3	11.3	26.5
	3	111	73.5	73.5	100.0
	Total	151	100.0	100.0	

Q47

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	28	18.5	18.5	18.5
	2	20	13.2	13.2	31.8
	3	103	68.2	68.2	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q48

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	21.2	21.2	21.2
	2	24	15.9	15.9	37.1
	3	95	62.9	62.9	100.0
	Total	151	100.0	100.0	

Q49

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	22	14.6	14.6	14.6
	2	28	18.5	18.5	33.1
	3	101	66.9	66.9	100.0
	Total	151	100.0	100.0	

Q50

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	19	12.6	12.6	12.6
	2	25	16.6	16.6	29.1
	3	107	70.9	70.9	100.0
	Total	151	100.0	100.0	

Q51

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	10.6	10.6	10.6
	2	19	12.6	12.6	23.2
	3	116	76.8	76.8	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q52

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	15	9.9	9.9	9.9
	2	28	18.5	18.5	28.5
	3	108	71.5	71.5	100.0
	Total	151	100.0	100.0	

Q53

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	48	31.8	31.8	31.8
	2	30	19.9	19.9	51.7
	3	73	48.3	48.3	100.0
	Total	151	100.0	100.0	

Q54

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	30	19.9	19.9	19.9
	2	22	14.6	14.6	34.4
	3	99	65.6	65.6	100.0
	Total	151	100.0	100.0	

Q55

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	21.2	21.2	21.2
	2	23	15.2	15.2	36.4
	3	96	63.6	63.6	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q56

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	10	6.6	6.6	6.6
	2	18	11.9	11.9	18.5
	3	123	81.5	81.5	100.0
	Total	151	100.0	100.0	

Q57

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	10.6	10.6	10.6
	2	22	14.6	14.6	25.2
	3	113	74.8	74.8	100.0
	Total	151	100.0	100.0	

Q58

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	13.2	13.2	13.2
	2	15	9.9	9.9	23.2
	3	116	76.8	76.8	100.0
	Total	151	100.0	100.0	

Q59

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	18	11.9	11.9	11.9
	2	25	16.6	16.6	28.5
	3	108	71.5	71.5	100.0
	Total	151	100.0	100.0	

Appendix C (continued)

Q60

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	10.6	10.6	10.6
	2	29	19.2	19.2	29.8
	3	106	70.2	70.2	100.0
	Total	151	100.0	100.0	

APPENDIX D

IRB Approval

CLARK ATLANTA UNIVERSITY
Institutional Review Board
Office of Sponsored Programs
223 James P. Brawley Drive, S.W. * ATLANTA, GA 30314-4391 * (404) 880-8000
Formed in 1988 by consolidation of Atlanta University, 1865 and Clark College, 1869

October 17, 2006

Mr Umoh U. Umoh <umoh33@yahoo.com>
School of Education
Dept of Education Leadership
Clark Atlanta University
Atlanta, GA 30314

RE: An Analysis of Factors that Influence Degree Completion at a Metro Atlanta HBCU
Principal Investigator: Umoh U. Umoh
Human Subjects Code Number: HR2006-8-192-1

Dear Mr. Umoh:

The Human Subjects Committee of the Institutional Review Board (IRB) has reviewed your revised protocol and approved of it as expedited and exempt from full IRB review in accordance with 45 CFR 46.101b.2. You may begin your study one week from the date of this notice.

Protocol Approval Code is HR2006-8-192-1/A

This approval is valid for one year from the date of this notice. This permit will thereforeexpire on October 20, 2007. Thereafter, continued approval is contingent upon the annual submission of a renewal form to this office. Any reaction or problems resulting from this investigation should be reported immediately to the IRB, to the Department Chairperson and any sponsoring agency.

If you have any questions, please contact Dr. Georgiana Bolden at the Office of Sponsored Programs (404) 880-6979 or Dr. Paul I. Musey, (404) 880-6829.

Sincerely:

Paul I. Musey, Ph.D.
Chair
IRB: Human Subjects Committee

cc. Dr. Ganga Persaud <gpersaud@cau.edu>
Office of Sponsored Programs, Dr. Georgiana Bolden (gbolden@cau.edu)

APPENDIX E

Reliability of Findings

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q1	3.2914	1.2361	151.0
2.	Q2	3.6623	1.0639	151.0
3.	Q3	3.6026	1.1318	151.0
4.	Q4	3.7351	1.0997	151.0
5.	Q5	2.4503	1.2148	151.0
6.	Q6	3.5960	1.0719	151.0

Correlation Matrix

	Q1	Q2	Q3	Q4	Q5	Q6
Q1	1.0000					
Q2	.6938	1.0000				
Q3	.3835	.4193	1.0000			
Q4	.3269	.3960	.5630	1.0000		
Q5	-.1235	-.1291	-.0726	-.0798	1.0000	
Q6	.3410	.4466	.4053	.3045	-.2433	1.0000

N of Cases = 151.0

Appendix E (continued)

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	20.3377	16.7718	4.0953	6

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q1	17.0464	10.9245	.5286	.4929	.5352
Q2	16.6755	11.1940	.6245	.5510	.5082
Q3	16.7351	11.2227	.5628	.4037	.5267
Q4	16.6026	11.8411	.4917	.3489	.5569
Q5	17.8874	17.0472	-.1746	.0632	.7881
Q6	16.7417	12.6328	.3924	.2909	.5944

Reliability Coefficients 6 items

Alpha = .6437 Standardized item alpha = .6571

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q7	4.4172	.8194	151.0
2.	Q8	4.3311	.8304	151.0
3.	Q9	4.2715	.9160	151.0
4.	Q10	4.2517	.8018	151.0
5.	Q11	3.1987	1.3516	151.0
6.	Q12	3.8675	.9569	151.0
7.	Q13	3.0000	1.2490	151.0
8.	Q14	3.6225	.9848	151.0
9.	Q15	4.3046	.8717	151.0

Correlation Matrix

	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
Q7	1.0000								
Q8	.7264	1.0000							
Q9	.6652	.6610	1.0000						
Q10	.5291	.6149	.5780	1.0000					
Q11	.0571	.0420	.0100	.2181	1.0000				
Q12	.3600	.3156	.3227	.3044	.2163	1.0000			
Q13	-.1433	-.1543	-.1923	-.2729	-.2725	-.1785	1.0000		
Q14	.1965	.1457	.1809	.3322	.3472	.3286	-.2276	1.0000	
Q15	.5862	.6057	.4968	.5477	.0784	.3604	-.1041	.3756	1.0000

N of Cases = 151.0

Appendix E (continued)

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	35.2649	21.5294	4.6400	9

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q7	30.8477	16.6233	.6338	.6150	.5788
Q8	30.9338	16.6356	.6206	.6522	.5805
Q9	30.9934	16.5666	.5530	.5534	.5885
Q10	31.0132	16.8398	.6149	.5201	.5841
Q11	32.0662	18.2356	.1271	.2049	.7011
Q12	31.3974	17.1611	.4355	.2338	.6128
Q13	32.2649	23.7027	-.3070	.1452	.7901
Q14	31.6424	17.5246	.3681	.3047	.6273
Q15	30.9603	16.2917	.6363	.5105	.5736

Reliability Coefficients 9 items

Alpha = .6612 Standardized item alpha = .7402

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q16	3.0132	1.2274	151.0
2.	Q17	3.8477	.9712	151.0
3.	Q18	3.5894	1.0537	151.0
4.	Q19	2.5298	1.1594	151.0
5.	Q20	2.2980	1.0570	151.0
6.	Q21	3.3179	1.4065	151.0

Correlation Matrix

	Q16	Q17	Q18	Q19	Q20	Q21
Q16	1.0000					
Q17	.3540	1.0000				
Q18	.4475	.4270	1.0000			
Q19	.1168	-.0936	.1629	1.0000		
Q20	.1203	-.0139	.1525	.3110	1.0000	
Q21	.1327	.1870	.1246	.2108	.1780	1.0000

N of Cases = 151.0

Appendix E (continued)

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	18.5960	15.3357	3.9161	6

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q16	15.5828	10.7248	.3862	.2421	.4932
Q17	14.7483	12.4029	.2908	.2738	.5388
Q18	15.0066	11.0866	.4473	.3128	.4732
Q19	16.0662	12.0223	.2450	.1686	.5580
Q20	16.2980	12.3039	.2582	.1240	.5508
Q21	15.2781	10.8021	.2764	.1020	.5532

Reliability Coefficients 6 items

Alpha = .5740 Standardized item alpha = .5812

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q22	2.7815	1.3059	151.0
2.	Q23	2.3841	1.2375	151.0
3.	Q24	3.1987	1.2703	151.0
4.	Q25	2.4570	1.1647	151.0

Correlation Matrix

	Q22	Q23	Q24	Q25
Q22	1.0000			
Q23	.4359	1.0000		
Q24	.5086	.3837	1.0000	
Q25	.5044	.4047	.4069	1.0000

N of Cases = 151.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	10.8212	14.4145	3.7966	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q22	8.0397	8.0784	.6238	.3945	.6642
Q23	8.4371	9.1010	.5065	.2577	.7294
Q24	7.6225	8.7032	.5467	.3094	.7084
Q25	8.3642	9.1531	.5541	.3147	.7051

Reliability Coefficients 4 items

Alpha = .7592 Standardized item alpha = .7592

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q26	3.3907	1.1660	151.0
2.	Q27	3.6556	1.1018	151.0
3.	Q28	3.6424	.9616	151.0
4.	Q29	3.4437	1.0042	151.0

Correlation Matrix

	Q26	Q27	Q28	Q29
Q26	1.0000			
Q27	.5258	1.0000		
Q28	.3336	.4241	1.0000	
Q29	.2267	.3800	.6625	1.0000

N of Cases = 151.0

Appendix E (continued)

Statistics for Scale	Mean	N of Variance	Std Dev	Variables
	14.1325	10.1557	3.1868	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q26	10.7417	6.1662	.4541	.2943	.7344
Q27	10.4768	5.8511	.5798	.3627	.6559
Q28	10.4901	6.3049	.6060	.4861	.6478
Q29	10.6887	6.4958	.5180	.4532	.6922

Reliability Coefficients 4 items

Alpha = .7417 Standardized item alpha = .7476

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

	Mean	Std Dev	Cases
1. Q30	2.3775	1.2041	151.0
2. Q31	2.8940	1.4007	151.0

Correlation Matrix

	Q30	Q31
Q30	1.0000	
Q31	.4863	1.0000

N of Cases = 151.0

Statistics for	Mean	N of Variance	Std Dev	Variables
Scale	5.2715	5.0525	2.2478	2

Item-total Statistics

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q30	2.8940	1.9620	.4863	.2365
Q31	2.3775	1.4499	.4863	.2365

Reliability Coefficients 2 items

Alpha = .6494 Standardized item alpha = .6544

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q32	2.5828	1.3533	151.0
2.	Q33	2.8940	1.2551	151.0
3.	Q34	2.7020	1.1877	151.0

Correlation Matrix

	Q32	Q33	Q34
Q32	1.0000		
Q33	-.1047	1.0000	
Q34	-.1194	.6674	1.0000

N of Cases = 151.0

Statistics for Scale	Mean	N of Variance	Std Dev	Variables
	8.1788	6.0678	2.4633	3

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q32	5.5960	4.9757	-.1225	0154	.7998
Q33	5.2848	2.8584	.3850	.4460	-.2685
Q34	5.4768	3.0511	.3871	.4479	-.2331

Reliability Coefficients 3 items

Alpha = .3091 Standardized item alpha = .3422

Appendix E (continued)

Reliability

****** Method 2 (covariance matrix) will be used for this analysis ******

RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	Q35	3.8411	1.3271	151.0
2.	Q36	3.6225	1.3404	151.0
3.	Q37	3.4371	1.3836	151.0
4.	Q38	3.8013	1.1606	151.0

Correlation Matrix

	Q35	Q36	Q37	Q38
Q35	1.0000			
Q36	.3146	1.0000		
Q37	.6843	.3664	1.0000	
Q38	.4988	.0843	.5028	1.0000

N of Cases = 151.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	14.7020	15.2239	3.9018	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
Q35	10.8609	8.2939	.6762	.5087	.5853
Q36	11.0795	10.6870	.3127	.1619	.7951
Q37	11.2649	7.8227	.7089	.5341	.5595
Q38	10.9007	10.4634	.4546	.3142	.7155

Reliability Coefficients 4 items

Alpha = .7361 Standardized item alpha = .7342

REFERENCES

Adelman, C. (1999). *Answers in the box: Academic intensity, attendance patterns, and bachelor's degree attainment.* Washington, DC: U. S. Department of Education Office of Educational Research and Improvement.

Alfred, R., Ewell, P., Hudgins, J., & McClenney, K. (1999). Core indicators of effectiveness for community colleges: Toward high performance. Washington, DC: American Association of Community Colleges.

American College Testing Program. (1996). *ACT press release: College dropout rate reaches new high, graduation rate new low.* Iowa City, IA: author

American College Testing Program. (1998). *ACT press release: National college dropout and graduation rates, 1998.* Iowa City, IA: Author.

Antonio, A. (2004). The influence of friendship groups on intellectual self-confidence and educational aspirations in college. *The Journal of Higher Education,* 75(4), 446-469.

Astin, A. (1976). *Preventing students from dropping out.* San Francisco, CA: Jossey-Bass.

Astin, A. (1993). *What matters in college: Four critical years revisited.* San Francisco, CA: Jossey-Bass.

Astin, A. (1997). How "good" is your institution's retention rate? *Research in Higher Education, 38*(6), 647-58.

Astin, A., Tsui, L., & Avalos, J. (1996). *Degree attainment rates at American colleges and universities: Effects of race, gender, and institutional type*. Higher Education Research Institute, Los Angeles, CA.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Bean, J. (1980). *Dropouts and turnover: What works in student retention.* Iowa City, IA: American College Testing Program and the National Center for Higher Education Management Systems.

Bean, J. (1983). The application of a model of turnover in work organizations to the student attrition process. *Review of Higher Education, 6*, 129-148.

Bean, J. (1985). Interaction effects based on class level in an explanatory model of college student dropout syndrome. *American Education Research Journal, 22*, 35-64.

Becker, D., & Dwyer, M. (1998). The impact of student verbal/visual learning style preference on implementing groupware in the classroom. *Journal of Asynchronous Learning Networks, 2*(2), 61-69.

Berg, E. (2001). An assessment of community college students' learning styles, choice of instructional delivery method, withdrawal rates, and performance in writing intensive courses. *Dissertation Abstracts International, 62*(10), 3246A.

Boivin, M., Beuthin, T., & Hauger, G. (1993). Why Christian students leave Christian colleges: Evaluating the dynamics of adjustment in a Christian community. *The Journal of the Freshman Year Experience, 5*(1), 93-125.

Braxton, J., Vesper, N., & Hossler, D. (1995). Expectations for college and student persistence. *Research in Higher Education, 36*(5), 595-612.

Burd, S. (1997, October 3). Should eligibility for U.S. aid be linked to colleges' graduation and retention rates? *The Chronicle of Higher Education*, A33.

Cabrera, A., Nora, A., & Castaneda, M. (1992). The role of finances in the persistence process: A structural model. *Research in Higher Education, 33*(5), 571-593.

College Entrance Examination Board. (1998a). *Trends in college pricing: 1998.* Washington DC: Author.

College Entrance Examination Board. (1998b). *Trends in student aid: 1998.* Washington DC: Author.

Cuccaro-Alamin, S. (1996). *Post secondary persistence and attainment.* Washington, DC: National Center for Education Statistics.

Currie, D. (1994). Women's safety on campus: Challenging the university as gendered space. *Humanities and Society, 18*(3), 24-48.

Davis, J. (1997a). *College affordability: A closer look at the crisis.* Washington, DC: Sallie Mae Education Institute.

Davis, J. (1997b). *Student aid research: A manual for financial aid administrators.* Washington DC: National Association of Student Financial Administrators.

Dewey, J. (1938). *Experience and education.* New York: Simon and Schuster.

Fjortoft, N. (2005). Students' motivations for class attendance. *American Journal of Pharmaceutical Education, 69*(1), 1-9.

Freeman, V. (1995). Delivery methods, learning styles and outcomes for distance medical technology students. *Dissertation Abstracts International, 56*(07), 2647A.

Gall, M., Gall, J., & Borg, W. (2003). Educational research: An introduction (7th ed.). Boston, MA: Allyn and Bacon.

Gaultney, J., & Cann, A. (2001). Grade expectations. *Teaching of Pschology, 28*, 84.

Geraghty, M. (1996, July 19). Data show more students quitting college before sophomore year. *The Chronicle of Higher Education*, A35.

Gillespie, M., & Noble, J. (1992). *Factors affecting student persistence: A longitudinal study*. (American College Testing Research Report Series No. ACT-RR-92-4). Iowa City, IA: American College Testing Program.

Green, M. (1998). The relationship between academic performance and financial aid to the retention of first-generation freshmen enrolled in Christian colleges. *Dissertation Abstracts International, 59*, 09A.

Gregorc, A. (1982b). Gregorc style delineator: Development, technical, and administration manual. Columbia, CT: Gregorc Associates. Inc.

Hancock, T. (1996). Effects of class size on college student achievement. *College Student Journal, 30*(4), 479-481.

Hillman, D., Willis, D., & Gunawardena, C. (1994). Learner-interface interaction in distance education: An extension of contemporary models and strategies for practitioners. *American Journal of Distance Education, 8*(2), 30-42.

Hoffman, L., & Lowitzki, J. (2005, Summer). Predicting college success with high school grades and test scores: Limitations for minority students. *The Review of Higher Education, 28*(4), 455-474.

Horn, L., & Carroll, C. (1998). Stopouts or stayouts? Undergraduate who leave in their first year. Washington, DC: U. S. Department of Education Office of Educational Research and Improvement.

Hossler, D. (1984). *Enrollment management: An integrated approach.* New York: College Examination Board.

Irani, T., Scherler, C., Harrington, M., & Telg, R. (2001). Overcoming barriers to learning in distance education: The effects of personality type and course perceptions on student performance. *Proceedings of the 27th Annual National Agricultural Education Research Conference, 27*, 434-448.

Janz, T., & Pyke, S. (2000). A scale to assess student perceptions of academic climates. *Canadian Journal Higher Education, 3*(1), 89-122.

Kelly, D. (1999). Measurement made accessible: A research approach using qualitative, and Quality improvement methods. *Sage Publications, 4*(33), 66-68.

Knowles, M. (1980). *The modern practice of adult education: From pedagogy to andragogy.* New York: Cambridge.

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Laughlin, J. (1998). Assessment of learner outcomes as a model for evaluation of distance education. *Journal of Applied Communications, 82*(4), 7-21.

Leslie, L., & Brinkman, P. (1988). *The economic value of higher education*. New York: Macmillan Publishing Company.

Lim, C. (2001). Learning styles and asynchronous learning: Comparing the LASSI model to class performance. *Journal of Asynchronous Learning Networks, 4*(1), 23-32.

Loomis, K. (2000). Learning styles and asynchronous learning: Comparing the LASSI model to class performance. *Journal of Asynchronous Networks, 4*(1), 23-32.

Lundberg, C. (2003). The influence of time limitation, faculty, and peer relationships on adult student learning: A causal model. *The Journal of Higher Education, 74*(6), 665-689.

Mallinckrodt, B., & Sednek, W. (1987). Student retention and the use of campus facilities by race. *NASPA Journal, 24*, 28-32.

Maslow, A. (1970). *Motivation and Personality* (2nd ed.). New York: Harper & Row.

Mauldin, M. (2001). Dimension of a distance education program: Their characteristics and influence. *Dissertation Abstract International, 62*(10), 3314A.

McKeachie, W. (1999). *Teaching tips: Strategies, research and theory for college and university teachers* (10th ed.). Houghton-Mifflin Company.

Mortenson, T. (1998). Freshman-to-sophomore persistence rates by institutional control, academic selectivity and degree level 1983-1998. Oskaloosa, IA: The Mortenson Research Seminar on Policy Analysis of Opportunity for Postsecondary Education.

Mulugetta, Y., Saleh, D., & Mulugetta, A. (1997). Student aid issues at private institutions. *New Directions for Institutional Research, 95*, 43-64.

Munson, L. (1997). Participation in student financial aid programs during the freshman year and persistence in a private university. *Dissertation Abstracts International, 58* 07A.

Nehila, R. (1995). Attrition at a private, urban university: A longitudinal cohort study. *Dissertation Abstracts International, 56,* 12A. University Microfilms International No. AAG9611331).

Obrien, L. (1989). Learning styles: Make the student aware. *NASSP Bulletin, 73* (519), 85-89.

Oxford, R., Park-oh, Y., Ito, S., & Sumrall, M. (1993). Factors affecting achievement in a satellite-delivered Japanese language program. *The American Journal of Distance Education, 7*(1), 11-15.

Pajares, F. (1996a). Self-efficacy beliefs in achievement settings. *Review of Educational Research, 66*, 543-578.

Pajares, F. (1996b). Self-efficacy beliefs and mathematical problem-solving of gifted students. *Contemporary Educational psychology, 21*, 325 – 344.

Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved September 16, 2003, from http://www.emory.edu/EDUCATION/mfp/eff.html

Pascarella, E., & Rerenzini, P. (1991). *How college affects students*. San Francisco: Jossey-Bass.

Paulsen, M., & St. John, E. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *The Journal of Higher Education, 73*(2), 190-234.

Perna, L. (1998). The contribution of financial aid to undergraduate persistence. *Journal of Student Financial Aid, 28*(3), 25-40.

Persaud, G., Turner, T., & Umoh, U. (2006). Undergraduate student opinion survey. Atlanta, GA: Clark Atlanta University.

Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

Porter, J., & barberini, P. (1989). Collaboration between institutional researchers and student financial aid officers in developing student persistence policy. *New Directions for Institutional Research, No. 62: Studying the Impact of Student Aid on Institutions*, 16(2), 17-29.

Porter, O. (1991). Where do we go from here: Looking beyond student aid and access to persistence. *New Directions for Higher Education, 29*(2), 75-90.

Roueche, J., Eli, E., & Roue, S. (2001). *In pursuit of excellence – The community college of Denver*. Denver, CO: Community College of Denver Press.

Sadler, W., Cohen, F., & Kockesen, L. (1997, May). *Factors affecting retention behavior: A model to predict at-risk students.* Paper presented at the Annual Forum of the Association for Institutional Research, Orlando, FL.

Sax, L., Astin, A., Korn, W., & Mahoney, K. (1998). *The American freshman: National norms for fall 1998.* Los Angeles, CA: Higher Education Research Association, UCLA.

Schunk, T. (2000). *Learning theories: An educational perspective* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2003). *Teaching and learning at a distance: Foundations of distance education* (2nd ed.). Upper Saddle River, NJ: Merrill/Prentice-Hall.

Skolnik, M., & Giroux, R. (2001). Advancing learning-centered education at the state or provincial level. *Learning Abstracts – NISOD,* 4(1), 1.

Somers, P. (1995a). A comprehensive model for examining the impact of financial aid on enrollment and persistence. *Journal of Student Financial Aid, 25*(1), 13-27.

Somers, P. (1996b). The freshman year: How financial aid influences enrollment and persistence at a regional comprehensive university. *College Student Affairs Journal, 16*(1), 27-38.

Somers, P. (1996c). The influence of price on year-to-year persistence of college students. *NASPA Journal, 33*(2), 94-104.

Spady, W. (1970). Dropout from higher education: An interdisciplinary review and synthesis. *Interchange, 1*, 64-85.

Spoon, J., & Schell, J. (1998). Aligning student learning styles with instructor teaching styles. *Journal of Industrial Teacher Education Winter.* 35(2), 41-56.

Stampen, J., & Cabrera, A. (1986). Exploring the effects of student aid on attrition. *Journal of Student Financial Aid, 16*(2), 28-40.

St. John, E. (1998). The effects of changes in student aid policy on persistence: A case study of a private university. *Journal of Student Financial Aid, 28*(1), 7-18.

St. John, E., Kirshstein, R., & Noell, J. (1991). The effects of student financial on persistence: A sequential analysis. *Review of Higher Education, 14*(3), 383-406.

St. John, E., & Starkey, J. (1996). The nexus between college choice and persistence. *Research in Higher Education, 37*(2), 175-220.

Thomas, R. (1988). Student retention at liberal arts colleges: The development and test of a model. *Dissertation Abstracts International, 49,* 11A. University Microfilms International No. AAG8824186.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago, IL: The University of Chicago Press.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: The University of Chicago Press.

Tinto, V. (1997). Classrooms as communities: Exploring the educational character of students persistence. *The Journal of Higher Education, 68*(6), 599-623.

Tinto, V. (1998, Winter). College as classrooms: Taking research on student persistence seriously. *Review of Higher Education, 21*(2), 167-177.

U. S. General Accounting Office. (1996). *Tuition increasing faster than household income and public college costs*. Washington DC: Author.

Voorhees, R. (1985a). Financial aid and persistence: Do the federal campus-based aid programs make a difference? *Journal of Student Financial Aid, 15*, 21-30.

Vroom, V. H. (1976). Can leaders learn to lead? *Organizational Dynamics*. New York: John Wiley and Sons.

Wetzel, J., O' Tooles, D., & Peterson, S. (1999). Factors affecting student retention probabilities: A case study. *Journal of Economics and Finance, 23*(1), 45-55.

Witkin, H., & Goodenough, D. (1981). *Cognitive styles: Essence and origins*. New York: International University Press.

Zalenski, A. (2001). Graduation and attrition from the bachelor of liberal studies program: An analysis of selected variables. *Dissertation Abstracts International, 62*(03), 944A.

Zeiss, P. (2002, June/July). Weathering the storm: Besieged by funding cuts, community colleges, must get creative. *Community College Journal,* 13-14.